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The

Official Year Book

of

New South Wales.

1929-30.



T. WAITES.

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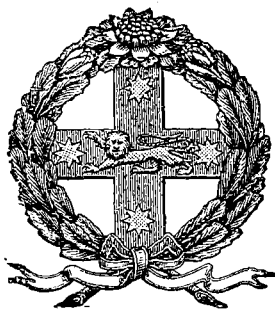
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THE
OFFICIAL YEAR BOOK
OF
NEW SOUTH WALES.
1929-30.



PREFACE AND INDEX.

T. WAITES,
GOVERNMENT STATISTICIAN.

PUBLISHED BY AUTHORITY OF THE GOVERNMENT OF
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PREFACE.

THIS is the thirty-seventh issue of the Official Year Book, which from the first issue in 1886 to 1904 was known as the "Wealth and Progress of New South Wales."

In order to render as prompt service as possible, the contents of the volume have been published already in eight parts, as they became available from the printer at dates between June, 1930, and April, 1931. Each part contains the latest information available at the time it was sent to press. Much of the text, therefore, relates to the year 1930.

Every care has been taken to keep the work free from errors, but if any be noticed by readers, notification regarding them would be appreciated.

A diagram map of New South Wales is published with the volume to show the railways, the land and statistical divisions, the shire boundaries, and the wheat belt. The boundaries of the statistical divisions coincide with those of Shires instead of Counties as in issues prior to 1923, because it is thought desirable that statistics generally should be compiled with the local governing area as the geographical unit. There are also a number of graphs and diagrams illustrating various economic factors.

The "Statistical Register of New South Wales," published annually from this Bureau, will prove serviceable to those who wish to obtain more details regarding the matters treated generally in this Year Book. The "Statistical Bulletin," issued quarterly, contains a summary of the latest available statistics of the State.

My thanks are tendered to the responsible officers of the various State and Commonwealth Departments, and to others who have kindly supplied information, often at considerable trouble.

Finally, I wish to express my appreciation of the services rendered by those officers of the Bureau who have been associated with me in the preparation of this volume.

T. WAITES,
Government Statistician.

Bureau of Statistics,
Sydney, 16th April, 1931.

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GEOGRAPHY.

NEW SOUTH WALES is situated entirely in the temperate zone of the Southern Hemisphere, and is on the opposite side of the world from the seat of the British Empire, of which it forms a part. It is distant from London 11,200 miles by the Suez Canal—the shortest shipping route.

The name “New South Wales” was given to the eastern part of Australia (then known as New Holland) on its discovery by Captain Cook in 1770, and for fifty-seven years all Australian territory east of longitude 135° east was known by that name. In 1825, shortly after the separation of Tasmania (Van Diemen’s Land), the western boundary was moved to longitude 129°. The steps by which the territory of the State assumed its present boundaries and dimensions are shown below:—

Date.	Nature of Territorial Adjustment.	Area involved in adjustment.	Area of New South Wales after adjustment §	Population of Territory known as New South Wales at end of year.
1788	New South Wales defined as whole of Australasia east of longitude 135° east.*	sq. miles. ...	sq. miles. 1,584,389	1,024 (26th Jan.).
1825	Tasmania practically separated from New South Wales.	26,215	1,558,174	} 33,500†
1825	Western boundary of New South Wales moved to longitude 129° east.	518,134	2,076,308	
1836	South Australia founded as a separate colony.	309,850	1,766,458	78,929
1841	New Zealand proclaimed a separate colony...	103,862	1,662,596	145,303
1851	Victoria proclaimed a separate colony ...	87,884	1,574,712	197,265
1859	Queensland proclaimed a separate colony ...	554,300	1,020,412	327,459
1861-3	Northern Territory and territory between longitude 129° and 132° east separated.	710,040	310,372	377,712
1911	Federal Capital Territory ceded to Commonwealth.	912	309,460	1,701,736
1915	Territory at Jervis Bay ceded to Commonwealth.	28	309,432	1,895,603

* Literally interpreted the boundaries defined included Fiji, Samoa, and some neighbouring islands.
† Approximate. § Exclusive of area of Pacific Islands, except New Zealand.

The area of New South Wales in the years 1788 to 1841, as shown above, is approximate only.

BOUNDARIES AND DIMENSIONS.

The present boundaries of New South Wales are as follow:—On the east, the coastline from Point Danger to Cape Howe; on the west, the 141st meridian of east longitude; on the north, the 29th parallel of south latitude, proceeding east to the Barwon River, and thereafter along the Macintyre and Dumaresq Rivers to the junction with Tenterfield Creek; thence along the crest of a spur of the great Dividing Range, the crest of that range north to the Macpherson Range, and along the crest of the Macpherson Range east to the sea; on the south, the southern bank of the Murray River to its source at the head of the river Indi, and thence by a direct marked line to Cape Howe.

From Point Danger, along a diagonal line, to the south-west corner of the State—a distance of 850 miles—the greatest dimension of the State is found. The length of coast, measured direct from Point Danger to Cape Howe, is 683 miles, the actual length of seaboard being 907 miles. The greatest breadth, measured along the 29th parallel of latitude, is 756 miles. The shortest dimension, along the western boundary, is about 340 miles.

AREA.

The total area of New South Wales, including Lord Howe Island, but excluding the Federal Territory, is 309,432 square miles, or 198,036,480 acres, being rather more than one-tenth of the area of Australia. About 4,639 square miles, or 2,969,080 acres, of the total surface are covered by water, including 176 square miles, or 112,750 acres, by the principal harbours. The area of Lord Howe Island is 5 square miles.

The area of New South Wales in relation to the total area of Australia is shown in the following statement:—

State or Territory.	Area.	Per cent. of total Area.
	sq. miles.	
New South Wales	309,432	10·40
Victoria	87,884	2·96
Queensland	670,500	22·54
South Australia	380,070	12·78
Western Australia	975,920	32·81
Tasmania	26,215	·88
Northern Territory	523,620	17·60
Federal Capital Territory	912	·03
Federal Territory at Jervis Bay	28	·00
Commonwealth	2,974,581	100·00

New South Wales is approximately three and a half times as large as Victoria, nearly twelve times as large as Tasmania, and somewhat smaller than South Australia. Queensland is about twice and Western Australia three times as large as New South Wales.

The following table shows the extent of the State of New South Wales and of the Commonwealth of Australia in comparison with the total area of all countries of the world, the British Empire, and certain individual countries:—

Country.	Area.	Ratio of Area to Area of New South Wales.	Ratio of Area to Area of Australia.
	sq. miles.		
New South Wales	309,432	1·000	·104
Commonwealth	2,974,581	9·613	1·000
Great Britain	89,041	·288	·030
Canada	3,729,665	12·053	1·254
Argentina	1,153,119	3·729	·388
United States	3,026,789	9·782	1·018
British Empire	13,257,584	42·845	4·456
The World	52,055,879	168·231	17·500

LORD HOWE ISLAND.

Lord Howe Island is a dependency of New South Wales, and, for the purpose of representation in the State Parliament, is included in King, one of the metropolitan electorates; it is situated about 300 miles east of Port Macquarie, and 436 miles north-east of Sydney. The island was discovered

in 1788; it is of volcanic origin, and Mount Gower, the highest point, reaches an altitude of 2,840 feet. The climate and soil are favourable to the growth of subtropical products, but on account of the rocky formation of the greater part of the surface of 3,220 acres, only about 300 acres are arable. The land has not been alienated, and is occupied rent free on sufferance, being utilised mainly for the production of *Kentia* palm seed. A Board of Control at Sydney manages the affairs of the island and supervises the palm seed industry. At the Census of 1921 the population numbered 111 persons.

PHYSICAL FEATURES.

The outline here given relates only to the physiography of the State. More particular reference to the distribution of industries and settlement will be found in "Rural Settlement" of this or previous issues of the Year Book and in the chapters relating to individual industries. A map showing the distribution of rainfall, rural population, and the principal industries was published at page 728 of the Year Book for 1924.

Coastline.

The coastline of New South Wales is remarkably regular, trending almost uniformly from north-north-east to south-south-west and displaying few striking topographical features. It consists of rugged cliffs, alternating with sandy beaches and numerous inlets, with here and there a river estuary.

The operations of important physiographical factors have prevented the coast from acquiring features such as projecting deltas and wide river valleys and estuaries, which so commonly give natural access to the interior of other countries. These factors are the close proximity of the watershed to the coast, the consequent shortness of the rivers, and the presence of a constant though slow-moving southerly ocean current, which sweeps along the coast and prevents the formation of deltas beyond the line of protection afforded by headlands. In a number of instances the volume of the coastal rivers is not great enough to carry their silt far to sea, with the result that, where they meet the dead water of the coast at their mouths, matter is deposited, forming a ground-work for "sand-bars," which constitute impediments to navigation even by coastal vessels.

The central portion of the coast, however, is well furnished with spacious inlets, distinguished by winding foreshores and ample roadsteads, so that within a space of about 150 miles there are four large natural harbours. Some of them rank among the finest in the world, and only await economic development. Port Stephens, the most northerly, lies a little to the north of the central point of the coast; it possesses a great expanse of water exceeding 30 feet in depth. Broken Bay is a submerged river valley, with three arms and spacious anchorage, at the mouth of the Hawkesbury. Port Jackson (Sydney Harbour), perhaps the finest harbour in the world, is the commercial centre of the State, and the most important shipping port in Australia. Jervis Bay possesses deep water throughout its great extent, and is a naval base destined to be the port of the Federal Capital at Canberra, with which it will be connected by rail. Further south, Twofold Bay, near the southern boundary, is a potential harbour, with a convenient entrance.

The coastal formation of Port Kembla and the estuary of the Hunter River (Port Hunter) have been converted into harbours serviceable to growing manufacturing centres. At frequent intervals along the coast numerous inlets provide shelter and facilities for coastal shipping.

Further particulars regarding the harbours and anchorages are shown in the chapter relating to shipping.

Strewn along the coast at intervals there are eight lakes, partly marine and partly estuarine, connected with the sea by narrow channels. It is believed that they were formerly coastal valleys at a higher level than they occupy at present, and that they became "drowned" by the sea when the subsidence occurred which formed the existing harbours and the present coastal levels. Their entrances in most cases are narrow and shallow, and are usually blocked by the action of the sea and wind upon the sand.

Most of these lakes are surrounded by picturesque scenery. They attract tourists and holiday-makers, and provide extensive fishing grounds. The largest, Lake Macquarie, 8 miles south of Newcastle, is 44 square miles in area. A chain of beautiful lakes, of which the principal are the Myall and Wallis Lakes, lies between Port Stephens and Cape Hawke.

The Surface.

The story, as told by geologists, of the manner in which the surface of New South Wales assumed its present shape is very interesting.

In past ages a great part of the interior of Australia was occupied by a vast mediterranean sea, bounded by a line of highlands, which probably extended considerably to the east of the present coastline. Their slope was towards the west, and rivers flowed down from them into the inland sea, carrying thither the sand and silt which now seals down the artesian basin. In a later age a gradual uplift took place in the northern part of Australia, accompanied by a depression in the southern portion; and streams which formerly flowed north-west and entered the sea by separate mouths became diverted to the south and conjoined with the Darling River.

The southern depression allowed the sea to encroach inland from the south and to spread over the region now known as the Riverina, but a subsequent uplift pushed the southern sea back to its present boundary and caused a combination of the western rivers into the one great system of Australia—the Murray-Darling.

During the upward movement in the interior a marked elevation took place in the coastal portion, the uplift being greater towards the coast, and an elevated plateau with a short steep slope to the eastern seaboard was produced. Rivers which then commenced to flow down this slope evidently possessed great erosive power, and, by a gradual process of denudation, worked their way inland, extending the coastal district into what were formerly the eastern portions of the Great Dividing Range.

Subsequently a submergence of the coast took place and the valleys of the coastal rivers were converted into harbours, such as Port Jackson, Broken Bay, and Port Stephens.

The surface of New South Wales bears signs of having passed through lengthy periods of erosion. It possesses less diversity than any of the continents, and there are no lofty mountain ranges, few peaks of importance, and no large lakes of permanent fresh water. Nearly the whole of the State consists of extensive plains and hilly patches at varying levels. The surface is divided naturally into four main divisions—the Coast District, the Tablelands, the Western Slopes, and the extensive Plains. The tablelands form the Great Dividing Range, which traverses the State from north to south, and marks the division between the coast district and the plains.

The coastal strip is undulating and well watered. The average width is about 50 miles in the north and 20 miles in the south. At Clifton the tableland abuts on the ocean, while the widest part (150 miles) is in the valley of the Hunter River, where the relatively soft rocks of the coal basin have offered least obstruction to river erosion.

The coastal region is bounded on the west by steep, often inaccessible, escarpments, where the highlands rise suddenly from the lower levels of the coast; the declivities are furrowed by deep and rugged valleys sloping toward the sea, and here and there a mountain spur projects eastward. These natural features have made access to the tablelands from the coast a matter of formidable difficulty in many districts, so that the highlands are crossed only at three points by the railway and at few more by roads.

The coast line is fringed with a narrow and fertile plain extending from north to south and broken only at Clifton. This plain juts along the Hunter Valley for a distance of 60 miles. A considerable strip north and south of the Clarence River is 30 to 40 miles wide, thence south to Port Stephens it is 10 to 15 miles in width; thereafter it gradually broadens to a width of 35 miles, then narrowing again until it is broken at Clifton. The South Coast continuation of the plain is nowhere wider than 15 miles, the average width being about 10 miles.

There are two tablelands—the northern and southern—comprising an extensive plateau region, divided near the middle by the Cassilis or Hunter Gap. Generally they present on the eastern side a steep descent towards the ocean, while on the west they slope gradually towards the plains. They vary in width from 30 to 100 miles. The northern tableland commences in Queensland and terminates on the northern side of the Peel River Valley; its average height is 2,500 feet. The southern tableland extends from the Victorian border, and slopes gradually to the Oudgeong and Colo Rivers; its average height is slightly less than the northern tableland, although the Kosciusko Plateau, the most elevated portion of the State, is within its limits.

At various levels gently undulating upland plains occur throughout the tableland division, such as the Dorrigo, which forms the elevated hinterland of the coastal tract around Coff's Harbour; and the Bathurst, Goulburn, Yass, and Monaro Plains on the central and southern tablelands. Notable features of the southern tableland are the limestone belt, in which the famous Jenolan and other limestone caves occur, and the grandeur of the scenery in the numerous sunken valleys, such as those of the Blue Mountains, the Burratorang Valley, through which the Wollondilly River flows, the Kangaroo Valley, between Moss Vale and the Shoalhaven River, and the Araluen Valley further south.

The Great Plain district covers nearly two-thirds of the area of New South Wales. It stretches from the base of the slopes of the tablelands to the western boundary of the State, and thence north, south, and west as the Great Central Plain of Australia. The plains are not quite level, but rise very gently from the bed of the Darling eastward towards the Great Dividing Range and westward towards the South Australian border. Only a few trifling elevations occur, but in the centre the Cobar plain, 150 miles wide, stretches for 300 miles in a north-westerly direction towards the Darling River, its altitude ranging from 500 feet to 1,000 feet above sea level. Owing to scanty rainfall the plains are practically devoid of forests.

The plains are watered by the rivers of the Murray-Darling system; the Darling and its tributaries are liable to considerable shrinkage in periods of dry weather; but, on the other hand, in wet seasons, these streams overflow their banks and flood the surrounding country for miles, producing a luxuriant growth of grasses.

The surface of the plains consists of fertile red and black soils, the former being particularly rich in plant food. The black soil formations represent the silted-up channels of old rivers which, when flooded, spread a fertile

silt over the surrounding district. The black soil plains occupy large areas along the middle courses of the Macquarie, Castlereagh, Namoi, and Gwydir Rivers.

Several portions of the plains are distinguished by special names, such as the Liverpool Plains, between the Peel and Liverpool Ranges; the Riverina, stretching northward from the Murray and intersected by a network of streams; the Bulloo Plain, between the Paroo River and the Grey and Barrier Ranges; the Bland, between Cootamundra and Lake Cowal; and the Pilliga Scrub, between Narrabri and Coonabarabran. The name Western Plains is applied generally to the Western Division as shown on the map in the frontispiece, while the plain country of the Central Land Division is referred to as the Central Plains, the southern portion receiving the special name Riverina.

Mountains.

The mountains of New South Wales may be classified in two main groups—the Great Dividing Range with its coastal spurs, and the ranges of the interior.

The Great Dividing Range is the name given to a continuous chain of highlands stretching along the whole eastern portion of Australia. In a strict acceptance of the term the portion within New South Wales is not a range of mountains, but a succession of extensive plateaux. Except for a westerly bend skirting the valley of the Hunter River, it runs for the most part parallel to the coast-line, and a number of lateral spurs branch from either side.

Proceeding from north to south, the names distinguishing the various portions of the Great Dividing Range in New South Wales are:—Macpherson, New England, Liverpool, Main or Blue Mountain, Cullarin, Gourock, Monaro, and the Muniong Ranges.

The Northern Tableland, comprising principally the highlands known as the New England Range, is the largest positive physical feature of the State. It has a considerable area at a greater altitude than 4,000 feet, and its highest point, Ben Lomond, is 5,000 feet above sea level. The highest parts of the Great Dividing Range are situated in the extreme south of the State, and are known as the Muniong Range. Several peaks attain an altitude of about 7,000 feet, the highest being Mount Kosciusko, 7,328 feet.

The other mountains of the State, representing the remnants of ancient ranges, possess little importance.

The Warrumbungle Range is practically a continuation of the Liverpool, extending in a north-westerly direction for a distance of nearly 100 miles. These mountains represent the denuded stumps of a series of volcanoes, which burst into activity near the shores of the old inland sea before it became silted up. The sandstone beds of the Warrumbungle Range form part of the intake beds of the great artesian basin.

Two ranges—the Barrier and Grey—of an average elevation of about 1,500 feet, and rising 800 feet above the surrounding plains, lie near the extreme west and north-west of the State. They form the western boundary of the vast depression through which the Darling River and its tributaries flow. The Barrier Range contains rich silver-lead deposits, and some of its rocks are possibly the oldest in Australia, if not in the world.

Rivers.

New South Wales does not possess any great rivers, and for this there are three main causes, viz., the position of the watershed; the absence of lofty peaks, whose snowy caps in melting might feed large streams; and the spasmodic, and unreliable nature of the rainfall in the western interior.

The Great Dividing Range, which constitutes the main watershed, has formed an absolute boundary between two river groups—the eastern or coastal, and the western—which are entirely distinct and possess dissimilar characteristics.

The coastal rivers flow east into the Pacific Ocean, and, on account of the proximity of the mountains to the ocean, the majority are short, rapid, independent streams; the Hawkesbury (293 miles) and the Hunter (287 miles) by reason of their winding courses are the longest. Generally, the rivers south of Sydney, where the coastal strip narrows considerably, are of less importance than those of the north.

The physical aspects of all the eastern rivers are similar. Their upper courses are amidst broken and mountainous country, and the lower basins consist usually of undulating land with rich alluvial flats. Where uncultivated, the land is densely timbered.

There are eight principal coastal rivers and numerous minor streams. Some are navigable for various distances; thus ocean-going vessels drawing 4 feet of water may proceed along the Tweed for 24 miles, the Richmond for 68 miles, the Clarence for 67 miles, the Bellinger for 15 miles, the Nambucca for 9 miles, the Macleay for 39 miles, the Hastings for 19 miles, the Manning for 29 miles, the Hunter for 35 miles, the Hawkesbury for 70 miles, and the Shoalhaven (including Crookhaven) for 22 miles.

The rivers of the western slope belong to the Murray-Darling system. The Gwydir, Namoi, Castlereagh, Macquarie, and Bogan discharge their waters into the Darling, which in turn carries them to the Murray, which receives also the waters of the Lachlan and Murrumbidgee. They drain an immense area, including the whole of the western portion of New South Wales, and large portions of Queensland and Victoria, and they discharge into the sea through a single mouth. In consequence of the gradual slope of the plain country, these rivers, unlike the coastal, are long, meandering, and slow in discharge. They wind for the most part through loose, absorbent soils. In many places they have cut deep channels, which at times are full of heavily-charged, fast-moving water, emptied from their upper basins after heavy rains. On such occasions these streams are impressive rivers. Normally they have not a great volume of flow, being sluggish, clear, shallow streams flowing at the bottom of channels, as much as 30 feet below the ground level. Sometimes, in dry seasons, the flow ceases and there remains nothing but a chain of water-holes. These curious variations in the condition of the western streams are due to the variability of the rainfall at their sources, the scanty rainfall in their lower basins, the absence of large feeding streams, the great evaporation, and the absorbent nature of the soils, particularly over the artesian basin.

The most important river is the Murray, which forms part of the southern boundary of the State. It has a total length of 1,609 miles, of which 1,203 are within New South Wales, and along this course a more or less regular stream flows, fed by the snows of the southern highlands. For about seven months of the year the river is navigable as far as Wentworth for large riverboats, and for smaller craft as far as Albury, 517 and 1,368 miles respectively from the Murray mouth in South Australia. The Murrumbidgee, 981 miles in length, ranks next to the Murray in regularity and volume of flow. In its lower course it receives the Lachlan, 922 miles in length. The longest river in Australia is the Darling, which measures 1,702 miles, the total length from its source to the mouth of the Murray being 2,219 miles. The Darling flows across western New South Wales from north-east to south-west to join the Murray 111 miles from the South

Australian border. It receives a number of rivers from South Queensland when their volume is sufficiently great, and in New South Wales receives successively the following rivers:—Gwydir, Namoi, Macquarie, Castlereagh, and Bogan. Particulars of the water storage schemes in connection with these rivers are published in chapter "Water Conservation and Irrigation" of this Year Book.

Owing to the existence of conflicting statements as to the lengths of the various rivers of the State steps were taken in 1926 by the Lands Department of New South Wales to compute the lengths of the principal rivers on a uniform basis. Considerable data were obtained from the results of surveys of the greater part of the Murray, Darling, Murrumbidgee and Lachlan Rivers and the remainder of the lengths were carefully measured on the standard parish maps. In every case the starting point was the furthest source of the river. The lengths as determined were as follow:—

Inland Rivers.	Length.	Coastal Rivers.	Length.	Coastal Rivers.	Length.
	miles.		miles.		miles.
Murray	1,609	Tweed	50	Wollomba	46
Darling	1,702	Richmond	163	Hunter	287
Murrumbidgee	981	Clarence	245	Hawkesbury	293
Lachlan	922	Bellinger	68	Shoalhaven	206
Bogan	451	Nambucca	69	Clyde	67
Macquarie	590	Macleay	250	Moruya	97
Castlereagh	341	Hastings	108	Turoos	91
Namoi	526	Camden Haven	33	Bega	53
Gwydir	415	Manning	139	Towamba	57

The relative magnitude of rivers as shown by the average annual volume of water which they carry may be ascertained in respect of some of the more important streams from the records of river gaugings, extending in some cases back to 1885.

The following comparison is based on the records of the period 1905-1924:—

River.	Gauging Station.	Distance from Source of River.	Drainage Area.	Average Annual Run-off of Water.
		miles.	sq. miles.	acre-feet.
Murray	Tocumwal	435	10,160	5,072,618
Murrumbidgee	Wagga	396	10,700	2,850,856
Darling	Menindie	1,383	221,700	1,620,194
Macquarie	Narromine	218	10,090	623,180
Lachlan	Condobolin	380	10,420	411,875
Namoi	Narrabri	302	9,820	408,387

In making the comparison gauging stations have been selected with drainage areas of approximately equal extent, except in the case of the Darling. The range of choice has been limited by the number of stations with available records. In the case of the Lachlan River the average run-off at Forbes, 126 miles above Condobolin, is 584,582 acre-feet per annum. Similar particulars are not available in respect of coastal rivers, except the Hunter, which at Singleton has a draining area of 6,580 square miles and an average annual run-off of 609,636 acre-feet of water. An acre-foot of water is such a quantity as would cover an acre of land to a uniform depth of 1 foot.

Lakes.

The lakes of New South Wales are unimportant, but may be classified in five groups,—the coastal lakes or lagoons, those of the tablelands, and of the Western Plains, the lakes and tarns of the Kosciusko Plateau, and the great artificial lake at Burrinjuck used for irrigation purposes.

The coastal lakes have been described already.

The lakes of the tablelands owe their origin to volcanic and other geological disturbances of former ages, and nearly all are situated in the southern tableland. Lake George, sometimes termed the largest freshwater lake in New South Wales, occupies a depression in the Cullarin Range; it is fed by several small streams, but has no visible outlet. Except after a succession of wet seasons, the lake is shallow, its waters being lost by evaporation and by soakage through the slate formation of its bed. If full, Lake George would cover an area of 60 square miles, but in average seasons a large proportion of its bed is dry and is utilised for grazing stock. Lake Bathurst lies in a circular depression about 7 square miles in area, 10 miles east of Lake George. Both lakes are situated more than 2,000 feet above sea-level.

The lakes of the Western Plains occur usually along the courses of the western rivers. They are mostly natural shallow depressions of considerable extent, which are filled during floods by the overflow of the rivers. Like the western rivers, these lakes vary with the seasons, presenting an appearance of great size in wet seasons, and dwindling to a succession of ponds and mud basins in continued dry weather, but they serve a useful purpose in dry seasons by maintaining the flow of the rivers below the lakes for some months after the upper courses become dry.

Along the Darling River the largest lake beds on the right bank are:—Narran, above Brewarrina; Cawndilla, Menindie, and Tandon, near Menindie; and, on the left bank, Gonyulka in the Wilcannia district.

Within the Lachlan basin the most important are Lake Cowal, which is situated about 40 miles from Forbes, receiving the drainage of the Bland Plain and the overflow of floodwaters from the Lachlan River, and Lake Cargelligo, which also receives the floodwaters of the Lachlan in wet seasons.

Lake Victoria, on the right bank of the Murray River, in the south-western corner of New South Wales, is connected with the Murray by Frenchman's Creek. It covers an area of 26,000 acres, and holds 17,000,000 cubic feet of water when full. It has been converted into a reservoir in connection with the River Murray Irrigation Scheme.

The Kosciusko Lakes are due to the formation of barriers of moraine material left behind by glaciers. They are situated about 6,000 feet above sea-level. The principal are the Blue Lake, Lake Albina, Cootapatamba and Club Lakes, and Hedley Tarn.

The Burrinjuck Dam, near the head of the Murrumbidgee River, is a large lake covering 12,740 acres, with a capacity of 33,612,000,000 cubic feet of water impounded by a retaining wall 240 feet in height. Its outlet is by the Murrumbidgee River, whose flow is regulated thereby to meet the needs of an extensive irrigation area on its bank 240 miles below the dam.*

There are also large storage dams in connection with the Metropolitan and Hunter District water services.

Mineral Springs.

Mineral springs of varied composition are found in many parts of the State; in some cases the waters have been marketed as table-waters, and some are of medicinal value. Such springs occur at Mittagong, Ballimore, Rock Flat, Bungonia, Jarvisville, and Yarrangobilly.

* See Chapter "Water Conservation and Irrigation."

TRANSPORT AND COMMUNICATION.

The problem of establishing an efficient system of transport in New South Wales is rendered difficult by several causes, viz., the existence of a belt of rugged highlands comparatively near the coast readily passable at only a few points; the consequent difficulty in connecting the coast with the interior; the absence of navigable rivers and waterways; and the scattered nature of the settlement.

The rugged approaches to the Great Dividing Range defied the efforts of explorers until 1813, when an expedition succeeded in crossing the mountains, and the first road over the range was opened in 1815. Shortly afterwards a way was discovered across the mountains in the vicinity of Lake George, near the spot where Goulburn now stands. These routes remained the easiest lines of communication with the interior to the west and south, and when railways were built they followed the roads. Strangely enough, the only real gap in the mountains, situated opposite Newcastle, and discovered by Cunningham in 1825, has not yet been utilised for traffic. The Great Northern Railway traversed the mountains by way of a higher gap at Murrurundi. The interior is connected with the sea by rail at two points—Sydney and Newcastle—and a line from Moss Vale to Port Kembla, which is in course of construction, will provide an additional connection.

The early policy of government made Sydney the centre of the whole settlement commercially as well as politically. With its advantageous situation on an unrivalled natural harbour, it became from the earliest times the point from which the roads radiated, and to which trade and commerce were drawn, despite the facts that its immediate district was not well adapted for agriculture and that access to the fertile interior was impeded by difficult mountains. In point of situation Port Stephens and Jervis Bay, excellent natural harbours situated respectively 85 miles north and 82 miles south of Sydney, are both qualified to constitute commercial outlets for the interior, and this remark applies with especial force to Port Stephens, which is the most central port of the State and has the advantage of large coal supplies in close proximity. The development of this port is urged strongly as part of a decentralisation scheme, and it is probable that Jervis Bay will eventually become a shipping centre. There is not a good harbour north of Port Stephens; and Twofold Bay, on the far South Coast, is probably too difficult of access from the interior to develop into an oversea shipping port.

Railway, shipping, postal, cable and telegraphic services all have their centre in Sydney, which with its environs contains more than 1,230,000 inhabitants, nearly one-half of the population of the State.

Localities such as the south-western Riverina, which are not yet connected by rail with the metropolis, the Broken Hill district, and parts of the North Coast, find their outlet in other States, but the railway system of New South Wales is gradually extending in these districts.

In view of its vast open spaces, New South Wales is specially adapted for aviation; air routes between Sydney and the capital cities of other States have been established and other work in connection with the organisation of air services is in progress.

Particulars regarding roads, railways, aviation, etc., in New South Wales are given in the chapters of this volume relating to Local Government, and to Transport and Communication.

GEOLOGY, FAUNA, FLORA.

A description of the geological formation of New South Wales, the fauna and the flora, was published in the 1921 issue of this Year Book.

CLIMATE.

NEW South Wales is situated entirely in the temperate zone, and its climate is generally mild and equable, and free from extremes of heat and cold. Abundant sunshine is experienced in all its seasons, and this factor exercises a strong influence on the lives and character of the people. On an average the capital city is without sunshine on only twenty-three days per year, and the average range of temperature between the hottest and coldest months is only about 17° Fah. In the hinterland there is even more sunshine, and the range of temperature is greater, but observations with the wet bulb thermometer show that the temperature is not maintained at so high a level as to be detrimental to the health and physique of persons engaged in outdoor labour in any part of the State.

Practically the whole of New South Wales is subject to the bracing influence of frosts during five or more months of the year. Snow has been known to fall over nearly two-thirds of the State, but its occurrence is comparatively rare except in the tableland districts. Perennial snow is found only on the highest peaks of the southern tableland.

The seasons are not so well defined in the western interior as on the coast. They are generally as follows:—Spring during September, October, and November; summer during December, January, and February; autumn during March, April, and May; winter during June, July, and August.

Meteorological Observations.

Meteorological observations in New South Wales are directed from Sydney as the centre of a subdivision of Australia, which includes the greater part of New South Wales. A special climatological station is maintained also at Dubbo, and there are many reporting stations throughout the State. Bulletins and weather charts are issued daily from the Meteorological Bureau, and rain maps and isobaric charts are prepared.

Particulars of meteorological observations at various stations in New South Wales are published annually in the Statistical Register of New South Wales. In some cases rainfall records are given for the last twenty years, and particulars for earlier years may be found in the Register for the year 1924-25.

Signals are displayed in Sydney to give warnings of storms and to indicate fair weather, rain, and cold or heat waves; forecasts are telegraphed daily to towns in country districts, and the city forecasts are published in the early editions of the press. Special forecasts regarding cyclonic conditions are issued to the press and to the Commonwealth and State Departments of Navigation; this arrangement enables precautions to be taken in regard to shipping. Flood warnings also are given in urgent cases.

Winds.

The weather in New South Wales is determined chiefly by anticyclones, or areas of high barometric pressure, with their attendant tropical and Antarctic depressions in which the winds blow spirally outward from the centre or maximum. These anticyclones pass almost continually across the face of the continent of Australia from west to east, and the explanation of the existence of such high-pressure belts lies probably in the fact that this area is within the zone in which polar and equatorial currents meet and circulate for some time before flowing north and south. The easterly movement depends on the revolution of the earth.

A general surging movement occasionally takes place in the atmosphere, sometimes towards, and sometimes from, the equator. The movement causes sudden changes in the weather—heat when the surge is to the south,

and very cold weather when it moves towards the equator. Probably these sudden displacements of the air systems are due to thermal action, resulting in expansion or contraction in the atmospheric belts to the north and south of Australia.

New South Wales is peculiarly free from cyclonic disturbances, although occasionally a cyclone may result from monsoonal disturbances, or may reach the State from the north-east tropics or from the Antarctic low-pressure belt which lies to the south of Australia.

In the summer months the prevailing winds on the coast of New South Wales blow from the north, with an easterly tendency which extends to, and in parts beyond, the highlands; in the western districts the winds are usually from the west. Southerly winds, which are characteristic of the summer weather on the coast, occur most frequently during the months from September to February, and between 7 p.m. and midnight. These winds, which blow from the higher southern latitudes, cause a rapid fall in temperature, and are sometimes accompanied by thunderstorms.

During winter, the prevailing direction of the wind is westerly. In the southern areas of the State the winds are almost due west, but proceeding northwards there is a southerly tendency, while on reaching latitudes north of Sydney the direction is almost due south. When they reach the north-eastern parts of the State, these winds are deflected in a westerly direction, and are merged in the south-east trade winds north of latitude 30°. During the cold months of the year, Australia lies directly in the great high-pressure stream referred to previously, and the high pressure when passing over the continent tends to break up into individual anti-cyclonic circulations.

Rainfall.

New South Wales is dominated by two rain belts—the tropic and the Antarctic. The amount of rainfall varies very greatly over the wide expanse of territory, the average decreasing from more than 80 inches per annum in the north-eastern corner to less than 7 inches in the north-western corner. This vital factor plays a very powerful part in determining the character of settlement.

Generally, more than half the annual rain falls in the first six months of the year, although at times and in certain districts the most serviceable rains occur in the spring and summer. (See Graphs, page 15.) The coastal districts receive the heaviest falls, ranging from 30 inches in the south to 80 inches in the north. Despite their proximity to the sea, the mountain chains are not of sufficient elevation to cause any great condensation; so that, with slight irregularities, the average rainfall gradually diminishes towards the north-western limits of the State.

An approximate classification of areas in New South Wales (including the Federal Territory) in accordance with the average annual rainfall shows the following distribution:—

Annual Rainfall.	Area.		Proportion per cent. of total area.	Annual Rainfall.	Area.		Proportion per cent. of total area.
	Sq. Miles.	Acres.			Sq. Miles.	Acres.	
inches.				inches.			
Over 70	668	427,520	·2	20 to 30	77,202	49,409,280	24·8
60 to 70	1,765	1,129,600	·6	15 to 20	57,639	36,888,960	18·6
50 to 60	4,329	2,770,560	1·4	10 to 15	77,268	49,451,520	24·9
40 to 50	15,804	10,114,560	5·1	Under 10	44,997	28,798,080	14·5
30 to 40	30,700	19,648,000	9·9	Total ..	310,872	198,638,080	100·0

It is apparent that only 42 per cent. of the area of the State receives rains exceeding on the average 20 inches per year. Over the greater part of the State the annual rainfall varies on the average between 20 per cent. and 30 per cent. from the mean, and protracted periods of dry weather in one part or another are not uncommon. Simultaneous drought over the whole territory of the State has been experienced only very rarely.

Three clearly defined seasonal rain-belts cut diagonally across the State from west to east with a southerly incline. A winter rain region, which includes the southern portion of the Western Plains and about two-thirds of the Riverina, is bounded on the north by a direct line from Broken Hill to Wagga with a curve around Albury. A summer rain region, including the whole of the northern subdivisions, is bounded on the south by a line which waves regularly, first south and then north of a direct line from the north-western corner of the State to Newcastle. Between these, where the two dominating rain-belts merge, there extends a region, including the central and south-eastern portions of the State, where the rains are non-seasonal. A narrow coastal strip between Nowra and Broken Bay receives its heaviest rains in the autumn.

The chief agencies causing rainfall are Antarctic depressions, monsoonal depressions, and anticyclonic systems. Antarctic depressions are the main cause of the good winter rains in the Riverina and on the South-western Slope. A seasonal prevalence of this type of weather would cause a low rainfall on the coast and tablelands, and over that portion of the inland district north of the Lachlan River. A monsoonal prevalence ensures a good season inland north of the Lachlan, but not necessarily in eastern and southern areas. An anticyclonic prevalence results in good rains over coastal and tableland districts, but causes dryness west of the mountains.

The distribution of rainfall is dependent on three factors—(1) the energy present in the atmospheric systems, (2) the rate of movement of the atmospheric stream, and (3) the prevailing latitudes in which the anticyclones are moving.

A map published on page 728 of the 1924 edition of this Year Book shows diagrammatically the distribution of rainfall in New South Wales.

Evaporation.

In New South Wales the amount of evaporation is so great as to make it a climatic element only second in importance to rainfall in its influence upon the State. Results so far obtained show that the rate of evaporation (measured by the loss from exposed water) increases from 40 inches per annum on the coast to nearly 100 inches in the north-western corner of the State, that is, the amount of evaporation is inversely related to the rainfall of the respective districts. Indeed, only on a small coastal patch in the north-eastern corner does the rainfall exceed the evaporation measured as above. This fact sheds light on the special needs of New South Wales in conserving surface water and soil moisture not only for successful agriculture, but also in connection with pastoral pursuits.

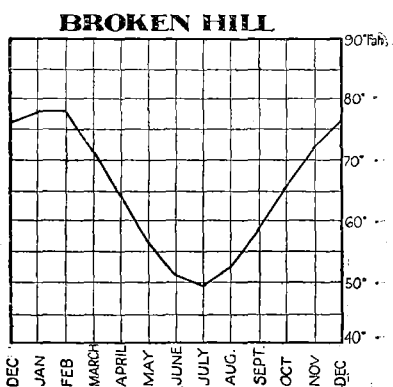
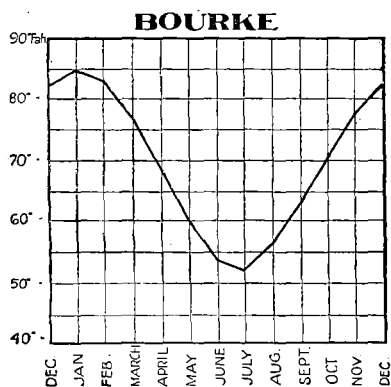
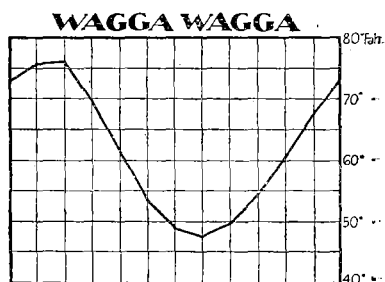
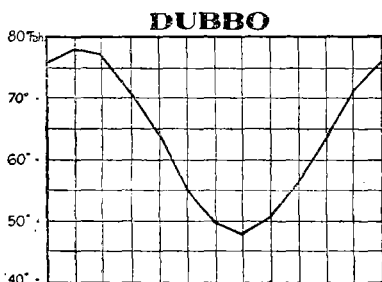
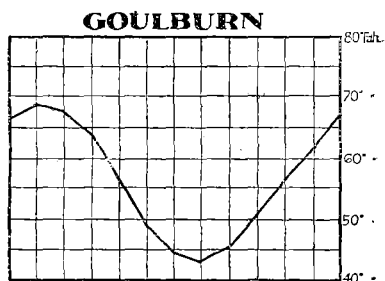
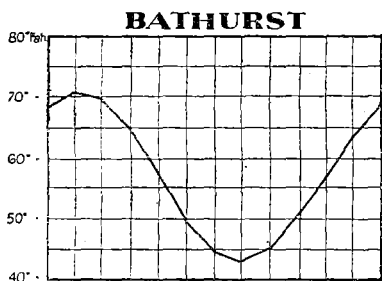
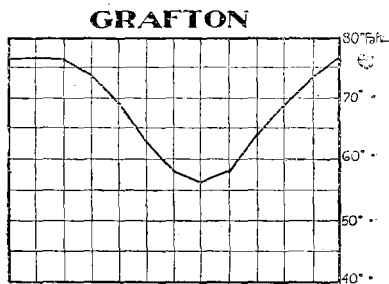
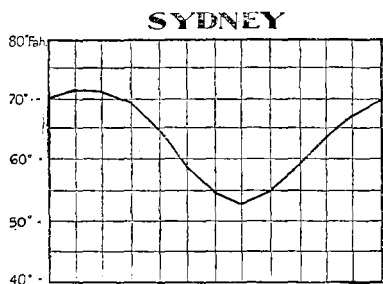
CLIMATIC DIVISIONS.

The territory of New South Wales may be divided into four climatic divisions, which correspond with the terrain—the Coast, the Tablelands, the Western Slopes of the Dividing Range, and the Western Plains.*

The northern parts of the State are generally warmer than the southern, the difference between the average temperatures of the extreme north and

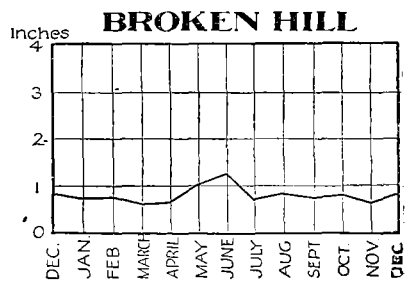
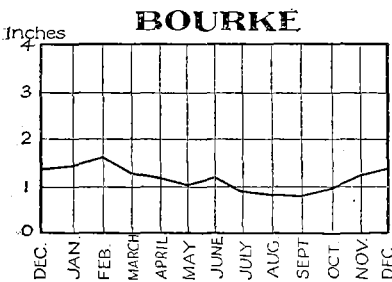
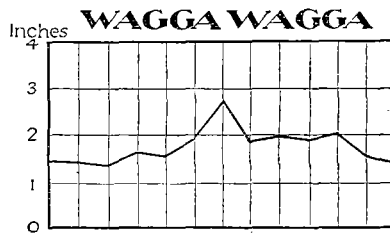
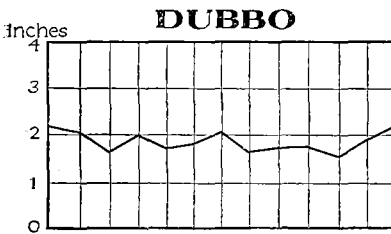
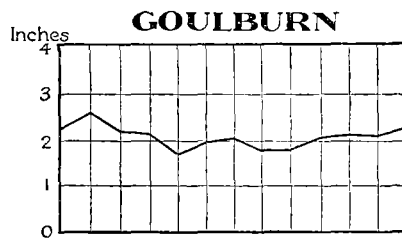
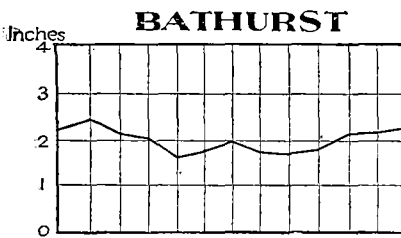
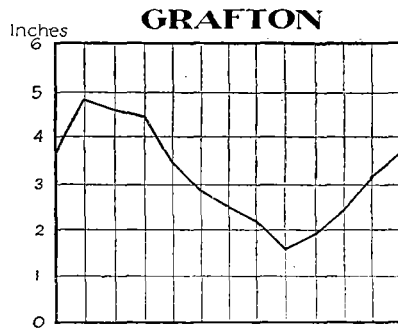
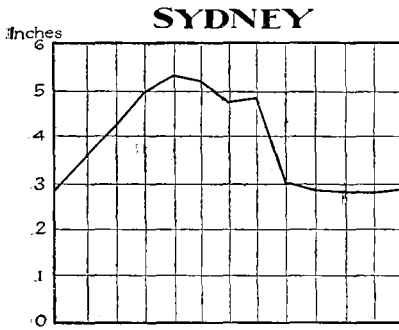
*See map in frontispiece.

MEAN MONTHLY TEMPERATURE.



The graph shows Mean Temperature in shade (Deg. Fah.) at each station over a series of years.

MONTHLY RAINFALL.



The graph shows Average Monthly Rainfall (inches) at each station over a series of years.

south being about 7° on the coast, 5° on the tablelands, and 6° on the slopes and plains. It should be noted, however, that the length of the State decreases from nearly 700 miles on the coast to about 340 miles on the western boundary. From east to west the average mean annual temperatures vary little except where altitudes are different, but usually the summer is hotter and the winter colder in the interior than on the coast. Thus at Sydney the average temperatures range from 71° in summer to 54° in winter, as compared with 76° in summer and 51° in winter at Wentworth in the same latitude in the western interior. Similar variations are found in the north. The mean daily range at any station is seldom more than 30° or less than 13°.

Coastal Division.

In the Coastal Division, which lies between the Pacific Ocean and the Great Dividing Range, the average rainfall is comparatively high and regular, and the climate, though more humid, is generally milder than in the interior.

The following table shows the meteorological conditions of the principal stations in the Coastal Division, arranged in the order of their latitude. These stations are representative of the whole division, and the figures are the average of a large number of years:—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual, 1900-1928.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
<i>North Coast—</i>									
Lismore	13	52	66·7	75·0	56·7	22·4	113·0	23·0	48·67
Grafton	22	40	67·8	76·2	57·6	24·7	114·0	24·9	34·51
<i>Hunter and Manning—</i>									
Singleton	40	135	64·1	76·1	52·1	20·3	113·9	22·0	26·80
West Maitland	18	40	64·4	74·7	53·2	21·4	114·0	28·0	34·36
Newcastle	1	34	64·6	72·2	55·5	14·9	110·5	31·0	43·40
Sydney	5	138	63·1	71·0	54·1	15·8	108·5	35·9	45·06
<i>South Coast—</i>									
Wollongong	0	54	63·0	70·2	54·8	17·0	106·0	33·6	50·39
Nowra	6	30	62·8	71·1	54·0	19·9	110·0	32·6	40·48
Moruya Heads	0	50	61·0	67·9	53·0	18·3	114·8	22·6	34·37
Bega	8	50	60·0	69·0	49·9	26·5	109·0	20·0	36·04

Taking the coast as a whole, the difference between the mean summer and mean winter temperature is about 19° only.

The North Coast districts are favoured with a warm, moist climate, the rainfall being from 40 to 80 inches annually. The mean temperature for the year is from 66° to 69°, the summer mean being 75° to 77°, and the winter mean 56° to 59°. On the South Coast the rainfall varies from 30 to 60 inches, and the mean temperature ranges between 60° and 63°, the summer mean being from 66° at the foot of the ranges to 70° on the sea coast, and the winter from 48° to 55° over the same area.

Coastal rains come from the sea with both south-east and north-east winds, being further augmented in the latter part of the year by thunderstorms from the north-west.

Sydney is situated on the coast half-way between the extreme northern and southern limits of the State. Its mean annual temperature is 63° Fahrenheit. The mean seasonal range is only 17°, calculated over a period of seventy years, the mean summer temperature being 71°, and the mean winter temperature 54°.

The following table shows the average meteorological conditions of Sydney, based on the experience of the seventy years ended 1928:—

Month.	Hourly Average Reading of Standard Barometer, corrected to 32° Fah., Standard Gravity and Mean Sea Level.	Temperature (in shade).			Rainfall.			
		Mean Standard.	Average Reading of Maximum Thermometer.	Average Reading of Minimum Thermometer.	Average.	Greatest.	Least.	Average number of days Rain.
		°	°	°	inches.	inches.	inches.	
January ...	29.751	71.6	78.4	34.9	3.67	15.26	0.42	14
February..	29.796	71.3	77.6	64.9	4.20	18.56	0.34	14
March ...	29.865	69.3	75.7	62.9	4.98	18.70	0.42	15
April ...	29.923	64.7	71.2	58.1	5.52	24.49	0.06	14
May ...	29.929	58.8	65.3	52.2	5.18	23.03	0.18	15
June ...	29.910	54.7	60.9	48.3	4.74	16.30	0.19	13
July ...	29.920	52.7	59.4	45.9	4.80	13.21	0.12	12
August ...	29.920	55.1	62.5	47.5	2.97	14.89	0.04	11
September	29.858	59.2	66.9	51.5	2.86	14.05	0.08	12
October ...	29.817	63.6	71.2	55.8	2.85	11.13	0.21	12
November	29.794	67.0	74.5	59.6	2.85	9.88	0.07	12
December	29.737	70.1	77.4	62.9	2.86	15.82	0.22	13
Annual ...	29.852	63.2	70.1	56.2	47.48	82.76	23.01	157

Tablelands.

On the Northern Tableland the rainfall is consistent, ranging from 30 inches in the western parts to 40 inches in the eastern. The temperature is cool and bracing, the annual average being between 56° and 60°; the mean summer temperature lies between 67° and 72°, and the mean winter between 44° and 47°. The Southern Tableland is the coldest part of the State, the mean annual temperature being about 56°. In summer the mean ranges from 56° to 70°, and in winter from 33° to 44°. At Kiandra, the elevation of which is 4,640 feet, the mean annual temperature is 44.4°. Near the southern extremity of the tableland, on the Snowy and Muniong Ranges, the snow is usually present throughout the year.

The statement below shows, for the Tableland districts, particulars of average temperature and rainfall at typical stations over a period of years:—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall—Mean Annual, 1909-1928.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
<i>Northern Tableland—</i>	miles.	feet.	°	°	°	°	°	°	inches.
Tenterfield ...	80	2,827	58·6	68·7	46·9	24·2	101·0	18·0	30·28
Inverell ...	124	1,980	59·6	71·2	47·0	29·6	105·5	14·0	29·32
Glen Innes ...	90	3,518	56·2	66·8	44·3	24·5	101·4	16·0	30·88
<i>Central Tableland—</i>									
Cassilis (Dalkeith) ...	120	1,500	60·1	72·0	47·5	24·4	109·5	19·0	22·15
Mudgee ...	121	1,635	60·0	72·4	47·0	28·5	108·0	15·0	24·88
Bathurst ...	96	2,200	57·2	69·7	44·3	27·9	112·9	13·0	23·65
Katoomba ...	58	3,349	53·8	63·2	43·2	15·3	98·0	26·5	52·88
<i>Southern Tableland—</i>									
Crookwell ...	81	2,000	52·8	63·9	41·3	22·1	100·0	20·0	34·05
Goulburn ...	54	2,129	56·1	67·8	44·1	23·6	111·0	13·0	24·23
Yass ...	92	1,657	57·2	70·2	44·9	24·4	108·0	21·0	23·72
Kiandra ...	88	4,640	44·4	55·7	32·6	20·8	91·0	4 below zero	62·67
Bombala ...	37	3,000	52·9	63·1	42·0	24·2	100·5	17·0	24·91

Western Slopes.

On the Western Slopes the rainfall is distributed uniformly, varying from an annual average of 20 inches in the western parts to 30 inches in the eastern; the most fertile part of the wheat-growing area of the State is situated on the southern part of these slopes, where the average rainfall is about 25 inches per annum. The mean annual temperature ranges from 63° in the north to 59° in the south; in the summer from 81° to 73°, and in the winter from 53° to 46°.

North of the Lachlan River, good rains are expected from the monsoonal disturbances during February and March, although they may come as late as May, and at times during the remainder of the year. These monsoonal or seasonal rains are caused by radiation in the interior of Australia during the summer months, when the heat suspends the moisture accumulated chiefly from the Southern Ocean.

In the Riverina district, south of the Murrumbidgee generally, and on the South-western Slopes, fairly reliable rains, light but frequent, are experienced during the winter and spring months.

The next statement gives information as to average temperature and rainfall for the principal stations on the Western Slopes over a period of years:—

Station	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall—Mean Annual, 1909-1928.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
<i>North Western—</i>	miles.	feet.	°	°	°	°	°	°	inches.
Moree ...	204	680	67·5	80·2	53·4	29·0	117·0	24·0	22·55
Bingara ...	153	1,200	64·2	77·1	50·4	28·7	112·5	16·0	30·22
Quirindi ...	115	1,278	61·8	74·0	48·4	30·1	107·6	13·0	26·51
<i>Central Western—</i>									
Dubbo ...	177	863	63·6	77·4	49·5	27·9	115·4	16·9	21·27
<i>South Western—</i>									
Young... ..	140	1,416	59·4	72·9	46·2	25·3	109·0	21·9	24·40
Wagga Wagga ...	158	615	62·0	75·7	48·8	25·3	116·8	22·0	20·95
Urana... ..	213	400	63·2	76·6	49·4	26·6	113·0	27·0	17·48
Albury ...	175	531	60·8	74·3	47·8	27·1	117·3	19·9	27·27

Western Plains.

The Western District consists of a vast plain, its continuity being broken only by the Grey and Barrier Ranges. Owing to the absence of mountains in the interior, the annual rainfall over a great part of this division, which lies in the zone of perpetual high pressure, does not exceed 10 inches. It increases from 7 inches on the north-western boundary of the State to 10 and 15 inches along the Darling River, and 20 inches on the eastern limits of the plain country. The mean annual temperature ranges from 69° in the north to 62° in the south; in the summer from 84° to 75°, and in the winter from 54° to 49°.

The summer readings of the thermometer in this district are from 10° to 20° higher than those on the coast. Excessive heat is experienced occasionally during the summer season, its occurrence in all probability being due to a temporary stagnation in the easterly atmospheric drift. Under normal conditions, air entering Western Australia with a temperature of 70° or 80° accumulates only 20° to 25° by contact with the radiation from the soil during its passage across the continent to the western districts of New South Wales.

The winter, with an average temperature over 49°, accompanied by clear skies and an absence of snow, leaves little to be desired from the standpoint of health; while, owing chiefly to the dryness of the climate, these inland regions produce merino wool of the highest quality.

The meteorological conditions of the Western Plains and the Riverina division will be seen from the following statement, corresponding to those given already for the other divisions of the State:—

Station	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall—Mean Annual, 1908-1929.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Brewarrina	345	430	68·6	82·4	53·8	26·7	120·0	28·0	14·03
Bourke	386	350	69·2	83·5	54·1	27·5	127·0	25·0	11·49
Wilcannia	473	246	66·5	80·2	52·3	26·2	120·8	21·8	9·21
Broken Hill	555	1,000	64·7	77·7	51·4	23·2	115·9	28·5	10·18
Condobolin	227	700	65·2	78·9	51·2	26·9	115·0	20·0	16·64
Wentworth	478	144	63·8	76·5	51·6	24·5	117·0	21·0	11·81
Hay	309	291	63·1	76·0	50·3	26·8	117·3	22·9	13·46
Deniliquin	287	268	62·0	74·7	49·6	25·1	116·5	22·0	15·53

OBSERVATORY.

Sydney Observatory, lat. 33° 51' 41·1" south, long. 151° 12' 23·1" east, established in the year 1856, is a State institution. The work of the Observatory is astronomical and the principal instruments are the transit circle, astrograph, equatorial, and seismograph. Owing to the unsuitableness of the atmosphere in Sydney the astrograph has been removed to Pennant Hills. The principal scientific work is the determination of the position,

distribution, and movement of stars in the region allotted to Sydney (viz., 52° to 65° south declination) in the great international scheme. In addition, occasional observations, such as those of comets, are made with the equatorial, and systematic records of earth tremors are sent to the Earthquake Committee of the British Association for the Advancement of Science. Practical work embraces the determination and notification of the standard time of the State; correspondence of an educational nature on astronomical matters, and day and evening reception of visitors interested in astronomy.

The activities of the Observatory were restricted to the more important branches of research work as from July, 1926.

STANDARD TIME.

The mean time of the 150th meridian of east longitude, or 10 hours east of Greenwich, has been adopted as the standard time in New South Wales, which is, therefore, 10 hours ahead of the standard time adopted in England. In the district of Broken Hill, South Australian standard time is generally observed, viz., $142\frac{1}{2}^{\circ}$ of east longitude, or 9 hours 30 minutes east of Greenwich. In the States of Queensland, Victoria, and Tasmania, the standard time is the same as in New South Wales. In Western Australia the standard time is the 120° of east longitude, or 8 hours east of Greenwich.

TIDES.

A self-recording tide-gauge has been in operation at Fort Denison, in Port Jackson, since 1867. The tidal datum adopted is Low Water, Ordinary Spring Tide. Taking this as zero, the mean sea-level is 2.52 feet; ordinary low water, 0.78 feet; ordinary high water, 4.20 feet; and the mean daily range is 3 feet 5 inches. The lowest tide was recorded on 16th July, 1916, when the gauge fell 1 foot 3 inches below datum. The highest tide was recorded on 26th May, 1880, viz., 7 feet $6\frac{1}{2}$ inches; in 1876 the gauge recorded 7 feet $4\frac{1}{2}$ inches on 22nd June, and 7 feet 3 inches on 21st July. On 3rd August, 1921, the gauge registered 7 feet 2 inches, and on that day occurred the greatest tidal range on record—6 feet $9\frac{1}{2}$ inches.

At Port Hunter the average rise and fall of ordinary tides is 3 feet 3 inches, and of spring tides 5 feet $4\frac{1}{2}$ inches; the greatest range being 6 feet 5 inches. The highest tide registered was 7 feet 4 inches in May, 1898.

On the coast the average rise of spring tides is 5 feet 6 inches approximately.

CONSTITUTION AND GOVERNMENT.

THERE are in New South Wales three administrations, viz., the Federal, whose seat is in the Federal Capital at Canberra (New South Wales), and which controls matters affecting the interests of Australia as a whole; the State, which meets in Sydney and deals with the more important questions of State and local interest; and the Local Government bodies, whose headquarters are at convenient centres within their areas, in which they control matters of purely local concern—these areas extend over nearly two-thirds of the State.

The State Government is the oldest, dating in its present form from 1856. Its constitution was modified in 1901, when the Federal Government was established, and in 1906, when Local Government was extended over its present area.

Early Forms of Government.

A brief account of the early forms of government in New South Wales and of the introduction of the existing system was published in the Year Book for 1921, at page 25. An account of the Commonwealth Government may be found in the same edition at page 38.

PRESENT SYSTEM OF STATE GOVERNMENT.

The Constitution of New South Wales is not framed completely in the Constitution Act of 1902, and is not entirely written. It is drawn from seven diverse sources, viz., certain Imperial statutes, such as the Colonial Laws Validity Act (1865) and the Commonwealth of Australia Constitution Act (1900); the Letters Patent and the Instructions to the Governor; an element of inherited English law; some Federal statutes; sundry State statutes; numerous legal decisions; and a large element of English and local convention.

The Imperial Parliament is legally omnipotent in local as well as in Imperial affairs, and it may exercise effective control over the affairs of the State by direct legislation and some indirect control through the Secretary of State for the Colonies, by whom the Governor is directed in the exercise of his powers. Imperial legislation forms the basis of the existing Constitution, and the Imperial Parliament regulates all matters of Imperial concern in addition to controlling the extensive powers which remain vested in the Crown by virtue of its prerogative. These include such important matters as foreign relations in peace and war, and control of the forces. In local affairs the prerogatives of the Crown are generally exercised by the Governor on the advice of the Executive Council, but where Imperial interests are involved the prerogative powers are exercised through the medium of the Privy Council, the Secretary of State for the Colonies, and the Governor.

The Governor.

In New South Wales the position of the Governor is primarily that of local representative of the Crown, and through him the powers of the Crown in matters of local concern are exercised. In addition he is titular head of the Government of New South Wales; he possesses powers similar to those of a constitutional sovereign, and he performs the formal and ceremonial functions which attach to the Crown in its august capacity.

His constitutional functions are defined and regulated partly by various statutes, which from time to time cast new duties upon him, partly by the Letters Patent constituting his office, and partly by the Instructions to the Governor. The Letters Patent and Instructions were given under the Royal

Sign Manual in 1900, and amended in 1909. These functions cover a wide range of important duties, and it is directed that "in the execution of the powers and authorities vested in him the Governor shall be guided by the advice of the Executive Council." This provision, however, is modified by the further direction that if, in any case the Governor should see sufficient cause to dissent from the opinion of his Ministers, he may act in the exercise of his powers and authority in opposition to the opinion of his Ministers, reporting the matter to the Secretary of State for the Dominions without delay. The extent of the Governor's discretionary powers, however, tends to contract, though he still possesses important spheres of independent action, such as in granting dissolution of Parliament. Moreover, he is entitled to full information on all matters to which his assent is sought, and in this way he may exercise a general supervision over his officers, and use his personal influence for the good of the State. The general nature of his position is such that he is guardian of the Constitution and bound to see that the great powers with which he is entrusted are not used otherwise than in the public interest. In extreme cases his discretion constitutes a safeguard against malpractice. His more important constitutional duties are to appoint the Executive Council and to preside over its deliberations; to summon, prorogue, and dissolve the Legislature; to assent, to refuse to assent, or to reserve bills passed by the Legislature; to appoint members of the Legislative Council; to keep and use the Public Seal of the State; to appoint all ministers and officers of State; and, in proper cases, to remove and suspend officers of State. He exercises the King's prerogative of mercy, but only on the advice of the Executive Council in capital cases, and of a Minister of the Crown in other cases.

With respect to responsibility for his actions the Governor does not occupy the same position as the King. He is amenable to the law; and, although the State accepts responsibility for his official acts, he is personally liable for his unofficial actions, civil and criminal. Politically he is indirectly responsible to the Imperial Parliament through the Secretary of State for the Colonies, but in State politics he usually acts on the advice of his Ministers, and they take the responsibility for their advice. However, in an extreme case if good reason existed the local Legislature might be justified in asking for his removal.

The Governor's normal term of office is five years, at a salary of £5,000 per annum, with certain allowances for his staff, provided by the Constitution Act out of the revenues of the State.

The periods for which the Governor may absent himself from the State are limited by the Instructions. When he is absent the Lieutenant-Governor acts in his stead in all matters of State. For that purpose the Chief Justice is usually appointed. In the event of the Lieutenant-Governor not being available to fill the Governor's position, an Administrator assumes office under a dormant Commission appointing the Senior Judge of the State as Administrator.

Air Vice-Marshal Sir Philip Woolecott Game, G.B.E., K.C.B., D.S.O., has been chosen to succeed Admiral Sir Dudley R. S. de Chair, whose term of office expired in February, 1930.

The Executive.

All important acts of State are performed or sanctioned by the Governor-in-Council, and, except in the limited spheres where the Governor possesses discretionary powers, he is required, in matters of local concern, to act on the advice of the Executive Council or of a Minister of the Crown.

The Council is established by virtue of the Letters Patent constituting the office of Governor, and it is composed of such persons as the Governor

is pleased to appoint. Its members are invariably members of the Ministry formed by the leader of the dominant party in the Legislative Assembly. When a member resigns from the Ministry he resigns also from the Executive Council, otherwise he may be dismissed by the Governor.

The Executive Council meets only when summoned by the Governor, who is required by his Instructions to preside over its deliberations unless absent for "some necessary or reasonable cause." In his absence the Vice-President presides.

The Ministry or Cabinet.

In New South Wales the terms "Ministry" and "Cabinet" are synonymous, since both bodies by custom consist of those members of Parliament chosen to administer departments of State, and to perform other executive functions. The Ministry is answerable to Parliament for its administration, and it continues in office only so long as it commands the confidence of the Legislative Assembly, from which nearly all its members are chosen. An adverse vote in the Legislative Council does not affect the life of the Ministry. The constitutional practices of the Imperial Parliament with respect to the appointment and resignation of Ministers have been adopted tacitly with some minor modifications. Cabinet acts in a similar way to the English Cabinet under direction of the Premier, who supervises the general legislative and administrative policy and makes all communications to the Governor.

Frequent meetings of Cabinet are held to deliberate upon the general policy of the administration, the more important business matters of the State, and the legislative measures to be introduced to Parliament, and to manage the financial business of the State. Its decisions are carried into effect by the Executive Council or by individual Ministers as each case requires.

Administrative matters of minor importance are determined by ministerial heads of departments without reference to the Executive Council, and every Minister possesses considerable discretionary powers in the ordinary affairs of his department.

Following on the resignation of the Labour Government a Ministry comprised by members of the Nationalist and Country Parties assumed office on 19th October, 1927. The present Ministry consists of the following members:—

Premier—The Hon. T. R. Bavin, K.C., B.A., LL.B., M.L.A.

Minister for Public Works—The Hon. E. A. Buttenshaw, M.L.A.

Attorney-General and Vice-President of the Executive Council—The Hon. F. S. Boyce, K.C., M.L.C.

Minister for Lands—The Hon. R. T. Ball, M.L.A.

Minister for Agriculture—The Hon. H. V. C. Thorby, M.L.A.

Minister for Education—The Hon. D. H. Drummond, M.L.A.

Minister for Local Government—Lt.-Col. The Hon. M. F. Bruxner, D.S.O., M.L.A.

Colonial Secretary—Capt. The Hon. F. A. Chaffey, M.L.A.

Minister of Justice—The Hon. J. R. Lee, M.L.A.

Minister for Labour and Industry—The Hon. E. H. Farrar, M.L.C.

Minister for Public Health—The Hon. R. D. Arthur, M.D., M.L.A.

Colonial Treasurer—The Hon. B. S. B. Stevens, M.L.A.

Minister for Mines and Minister for Forests—The Hon. R. W. D. Weaver, M.L.A.

Honorary Minister—The Hon. J. Ryan, M.L.C.

The salaries payable annually to members of the Cabinet were reduced by 15 per cent. as from 1st April, 1930, when they were fixed as follows by the Parliamentary Allowances and Salaries Act, 1925:—

	£
The Premier	2,078
The Attorney-General	1,781
The Vice-President of the Executive Council (and leader of the Government in the Legislative Council)	1,169
Nine other Ministers of the Crown, £1,653 each	14,879
Total	<u>19,907</u>

These amounts include the annual allowances paid to Ministers as members of the Legislative Assembly.

The salaries of Ministers were fixed as from 1st January, 1908, at the following rates:—Premier, £1,870; Attorney-General, £1,520; five other Ministers, £1,370 each; Vice-President of the Executive Council, £800. They were increased in 1920 upon the recommendation of a judge of the Arbitration Court to the same rates as are payable now, but, between 1st July, 1922, and 1st July, 1925, they were on the following scale:—Premier, £2,000; Attorney-General, £1,600; nine other Ministers, £1,500 each; Vice-President of the Executive Council, £900.

THE STATE LEGISLATURE.

The State Legislature consists of the Crown and two Houses of Parliament, and all State laws are enacted "by the King's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and the Legislative Assembly in Parliament assembled." It exercises a general power of legislation, and possesses plenary and not delegated authority. The Constitution Act of 1902 provides that "the Legislature shall, subject to the provisions of the Commonwealth of Australia Constitution Act, have power to make laws for the peace, welfare, and good government of New South Wales in all cases whatsoever." It can delegate its powers, and within its territory its actions are restricted only by legislation of the Imperial Parliament intended to apply to New South Wales, and by valid Federal enactments.

The two Houses of Parliament are the Legislative Council (or Upper House), and the Legislative Assembly (or Lower House). Their powers are nominally co-ordinate, but it is provided that bills appropriating money or imposing taxation and bills affecting itself must originate in the Legislative Assembly, which is the elective Chamber, and which, it is recognised, must control taxation and expenditure. However, bills involving money matters may be introduced only by a Minister on the recommendation of the Governor, and in this way the responsibility of the Ministry for financial measures is secured.

Every member of Parliament must take an oath or make an affirmation of allegiance.

By virtue of the Constitution Act it is a function of the Governor to summon, prorogue, and dissolve Parliament, but it is provided that both Houses shall meet at least once in every year, so that a period of twelve months shall not elapse between sessions. The continuity of Parliament is ensured by law. The Parliamentary Electorates and Elections Act, passed in 1912 and amended in subsequent years, provides that writs for the election of new members must be issued within four days after the dissolution of the Legislative Assembly, that they must be returned within sixty days after

issue (unless otherwise directed by the Governor), and that Parliament shall meet within seven days of the return of writs. The duration of Parliament was limited to three years in 1874.

It is agreed tacitly that the procedure in each House shall be conducted according to its prototype in the Imperial Parliament, but comprehensive Standing Orders regulating the business of each House have been drawn up. When a disagreement arises between the two Houses each appoints "managers" to confer upon the matters in dispute. There is no provision to meet a deadlock other than by dissolution of the Legislative Assembly, which may be granted by the Governor. The new Legislative Assembly is regarded as representing the will of the people; and the overwhelming opinion is that the Legislative Council should recognise it.

Much interest and some controversy centres around the powers of the Governor in granting a dissolution of Parliament. Strictly speaking, only the Legislative Assembly is dissolved, but Parliament is ended thereby, because both Houses are necessary to constitute a Parliament. There are two main cases in which a dissolution may be granted in addition to that mentioned above; they arise when, on a question of policy, the Ministry sustains an adverse vote in the Legislative Assembly, and when the Legislative Assembly becomes factious, or will not form a stable administration.

The Legislative Council.

The Legislative Council is a nominee Chamber consisting of a variable number of members appointed for life without remuneration. The Governor, with the advice of the Executive Council, may summon to the Legislative Council any person who is of the full age of 21 years, and is a natural-born subject of his Majesty or naturalised in Great Britain or in New South Wales. An Act to authorise the appointment of women as members of the Council received Royal Assent in February, 1926.

In making appointments to the Legislative Council the Governor acts ordinarily on the advice of the Ministry, and no special instructions have been issued to him respecting the acceptance or rejection of such advice. Not more than one-fifth of the members summoned to the Council may be persons holding office of emolument under the Crown. The seats of members become vacant by death, resignation, absence, accepting foreign allegiance, bankruptcy, accepting public contracts, or by criminal conviction. The presence of one-fourth of the members, exclusive of the President, is necessary to form a quorum for the despatch of business.

In 1917 there were seventy-one members of the Council, and this number was not exceeded until 1921, when sixteen new appointments were made. The total membership in April, 1930, was 93.

A President appointed from among the members by the Governor presides over the Council. He receives an annual salary of £1,020. There is also a Chairman of Committees, who receives a salary of £595 per annum. Members of the Legislative Council are supplied with free passes on State railways and tramways.

Proposed Reform of Legislative Council.

Under the provision of the Constitution (Legislative Council) Amendment Act, 1929, a bill for the abolition of the Upper House or for the alteration of its constitution or powers may not be presented for Royal Assent until it has been approved by the electors at a referendum at least two months after the bill has been passed by Parliament. A bill for the reform of the Council was passed by both Houses of Parliament in November, 1929, and the vote of the electors is to be taken on a date to be proclaimed.

The bill provides that the Upper House shall consist of sixty members to be elected at a secret ballot by members of both Houses of Parliament voting as one electoral body. The elections are to be according to the principle of proportional representation when more than one member is to be elected, each voter having one transferable vote, and according to a preferential system when only one seat is to be filled. Persons entitled to vote at elections of the Legislative Assembly, and resident at least three years in the Commonwealth (except members of the Legislative Assembly), are to be qualified for election as members of the Council. At the elections of the first constitution of the Council there are to be four separate elections of fifteen members, and the term of service of the first group is to be twelve years, of the second group nine years, of the third six years, and of the fourth three years. Thereafter, one-fourth of the members are to be elected every three years.

Money bills, *i.e.*, those appropriating moneys or imposing taxation, shall not originate in the Legislative Council, and the Council may not amend appropriations for ordinary annual services nor taxation bills, but may suggest by message amendments thereto. The bill contains provisions for preventing a deadlock in the case of disagreement between the two Houses. In regard to a disagreement relating to appropriations for ordinary annual services the Assembly may direct that the bill with or without any amendment suggested by the Council be presented for Royal Assent. If the Council fails to pass a bill relating to any other appropriation or to taxation and the disagreement continues when the Assembly has passed the bill a second time after an interval of three months, the Governor may convene a joint sitting of both Houses for the discussion of the bill. A vote is not to be taken at the joint sitting, and after it has been held the Legislative Assembly may pass the bill for Royal Assent with or without the suggested amendments.

Under the provisions for preventing a deadlock in respect of other bills a joint sitting may be convened if the Assembly has passed a bill a second time with an interval of three months. The members present deliberate and vote together upon the bill and the proposed amendments, and the bill may be passed by a majority vote. If the bill be not passed at the joint sitting and it be passed by the Assembly in the next Parliament it may be presented to the Governor for assent even if the Legislative Council does not consent to it.

The Legislative Assembly.

The Legislative Assembly is the elective or popular House of Parliament, and is the most important factor in the government of the country. By its power over supply it ultimately controls the Executive. It consists of ninety members elected on a system of universal adult suffrage for a maximum period of three years. Any person who is enrolled as an elector of the State is eligible to be elected to the Legislative Assembly, except persons who are members of the Federal Legislature or of the Legislative Council, or who hold non-political offices of profit under the Crown, other than in the army or navy. It was provided in 1916 that any officer of the public service of New South Wales may be elected to the Legislative Assembly on condition that he forthwith resign his position in the service. At the close of 1918 all legal impediments to the election of women to the Legislative Assembly were removed. Several women have since contested seats at the elections, and one has been elected. The seat of a member becomes vacant in similar cases to those stated above for Legislative Councillors.

A Speaker presides over the House, and his election is the first business when the House meets after election. He presides over debate, maintains order, represents the House officially, communicates its wishes and resolutions, defends its privileges when necessary, and determines its procedure. There is also a Chairman of Committees elected by the House at the beginning of each session; he presides over the deliberations of the House in Committee of the Whole, and acts as Deputy-Speaker.

Payment of members of the Legislative Assembly was introduced as from 21st September, 1889. The amount fixed originally was £300 per annum, but it was increased to £500 by an Act assented to on 17th September, 1912, further increased to £875 as from 1st November, 1920, after inquiry and report by a Judge of the Court of Industrial Arbitration, reduced to £600 in July, 1922, fixed at £875 in July, 1925, and at £743 in April, 1930. An aggregate amount of £2,700 is provided for postage, each member receiving an order monthly for one-twelfth of his annual allowance. In addition each member is supplied with a free pass on State railways and tramways. The salary of the Speaker is £1,423, of the Chairman of Committees £947 per annum, and, since 1912, the leader of the Opposition has received an annual allowance of £250 in addition to his allowance as member.

State Parliamentary Committees.

A number of committees consisting of members of Parliament are appointed to deal with special matters connected with the business of the country and of either House; from time to time select committees are chosen to inquire into and report on specific matters for the information of Parliament and the public. Each House elects a committee to deal with its Standing Orders and with printing, and a joint committee to supervise the library. In addition there are the more important committees described below.

Committees of Supply and of Ways and Means.

These committees consist by custom of the whole of the members of the Legislative Assembly, and they deal with all money matters. The Committee of Supply debates and determines the nature and amount of the expenditure, and the Committee of Ways and Means debates and authorises the issue of the sums from the Consolidated Revenue Fund and frames the resolutions on which taxing proposals are based.

Parliamentary Standing Committee on Public Works.

A joint committee of members of the Legislative Council and Legislative Assembly, called the Parliamentary Standing Committee on Public Works, is appointed by ballot as soon as practicable after the commencement of the first session of every Parliament. The committee consists of three members of the Legislative Council and four members of the Legislative Assembly, and it has power, under the Public Works Act, to prosecute inquiries, to summon witnesses, and to compel the production of books, etc.

The Chairman receives as remuneration £3 3s. for each sitting of the committee, and the other members £2 2s. each.

Proposals for public works of an estimated cost exceeding £20,000 must be submitted and explained by a Minister in the Legislative Assembly, and then referred to the Public Works Committee for report.

Public Accounts Committee.

For the better supervision of the financial business of the State a Public Accounts Committee is appointed every Parliament under provisions of the Audit Act, 1902, from among the members of the Legislative Assembly. It

consists of five members, and is clothed with full powers of inquiry into any question arising in connection with the public accounts and upon any expenditure by a Minister of the Crown made without Parliamentary sanction. It reports on such matters to the Legislative Assembly.

Court of Disputed Returns.

The Parliamentary Electorates and Elections (Amendment) Act of 1928, provides for the establishment of a Court of Disputed Returns—a jurisdiction conferred on the Supreme Court. The business of the Court is to inquire into and determine matters connected with election petitions and questions referred to it by the Legislative Assembly concerning the validity of any election or the return of any member, and questions involving the qualifications of members.

Its decisions are final, but it must report to the House.

Commissions and Trusts.

In addition to the Ministerial Departments, various public services are administered by Commissions, Boards, and Trusts; the more important are:—

- Railway Commissioners for New South Wales.
- Metropolitan Water, Sewerage, and Drainage Board.
- Hunter District Water Supply and Sewerage Board.
- Sydney Harbour Trust Commissioners.
- Water Conservation and Irrigation Commission.
- Commissioners of the Government Savings Bank of New South Wales.
- Board of Fire Commissioners of New South Wales.
- Metropolitan Meat Industry Board.
- Forestry Commission.
- Western Land Board.
- Main Roads Board.
- Prickly-pear Commission.
- Hospital Commission.
- Workers' Compensation Commission.

In each case the authority controls a specific service, and administers the statute law in relation to it, subject to a limited degree of supervision by a Minister.

Auditor-General.

The Auditor-General is appointed by the Governor, and holds office during good behaviour. In certain cases he may be suspended by the Governor, but he is removable from office only on an address from both Houses of Parliament. He is required to take an oath that he will faithfully perform his duties, and he is debarred from entering political life. He is endowed with wide powers of supervision, inspection, and audit in regard to the collection and expenditure of public moneys and the manner in which the public accounts are kept. He exercises control over the issue of public moneys, and all warrants must be countersigned by him. Matters connected with the public accounts are subject to special or annual report to Parliament by him, and he may refer any matter to the Public Accounts Committee.

STATE ELECTORAL SYSTEM.

The electoral system is controlled by an Electoral Commissioner—who is charged with the administration of the Act and legal provisions relating to the registration or enrolment of electors, the preparation of rolls and

the conduct of elections of the Legislative Assembly. The Electoral Commissioner holds office for seven years and is eligible for reappointment. He may be removed from office only by resolution of both Houses of Parliament or through performing some disqualifying action laid down in the law.

Franchise.

The elections of members of the Legislative Assembly are conducted by secret ballot. Adult British subjects, men and women, are qualified for enrolment as electors when they have resided in the Commonwealth for a period of six months, in the State for three months, and in any subdivision of an electoral district for one month preceding the date of claim for enrolment.

Persons are disqualified from voting who are of unsound mind or who have been convicted and are under sentence for an offence punishable in any part of the British Empire by imprisonment for one year or longer.

Since the year 1894 each elector has been entitled to one vote only. The electoral rolls are compiled under provisions for compulsory enrolment introduced in 1921. In accordance with relevant sections of an Act passed in 1928, arrangements may be made with the Commonwealth for joint electoral rolls for State and federal purposes.

The Parliamentary Electorates and Elections (Amendment) Act of 1928 contains provisions for compulsory voting, which will come into force when proclaimed.

Electors absent from their districts have been permitted since 1913 to record their votes at any polling-place in the State, and 64,871 votes were so recorded in 1927, compared with 36,054 in 1925, and 38,752 in 1922. Postal voting, in the case of persons precluded from attendance at any polling-place by reason of illness or infirmity, distance over 15 miles (reduced to 10 miles in 1928), or travelling, was introduced in 1920, when 2,773 votes were so recorded. In 1922 there were 5,019 such votes, 4,495 in 1925, and 9,289 in 1927.

Where any qualified elector is blind or otherwise incapacitated from voting or is unable to write, he may require the deputy returning-officer to mark his ballot-paper according to his instructions. In 1925 there were 13,490 "open votes" made in this way. The number in 1927 was not recorded.

At general elections polling is conducted on the same day in all electorates. Polling-day is a public holiday from noon, and during the hours of polling (8 a.m. to 8 p.m.) the hotels are closed.

A system of voting intended to secure proportional representation was introduced by an Act passed in 1918 and operated at the general elections of 1920, 1922, and 1925. A description of the system and an analysis of the party representation secured under it is shown on page 42 of the Year Book for 1926-27. In 1926 an Act was passed restoring the system of single seats and providing for preferential voting. This Act also provided that casual vacancies occurring after the dissolution of the twenty-seventh Parliament should be filled at by-elections.

Voters must number the candidates in order of preference on the ballot-paper, and votes are informal unless preferences have been duly expressed for all candidates. In counting votes, the candidate is elected who has secured an absolute majority of votes either of first preferences outright or of first preferences plus votes transferred to him in due order of preference by excluding in turn candidates with the lowest number of votes and re-allotting their votes according to the next preference indicated.

Electorates and Electors.

The electoral law provides that electorates are to be redistributed whenever directed by the Governor. In the event of there being no direction by the Governor, a distribution must take place on the expiration of nine years from the date of the last redistribution. The redistribution is made by a special commission of three persons, viz., the Electoral Commissioner, the Government Statistician, and the Surveyor-General.

For the purposes of the distribution it is prescribed by the Parliamentary Electorates and Elections (Amendment) Act of 1928 that the State must be divided into three parts, viz., the Sydney area, to which 43 seats are allotted, the Newcastle area 5 seats, and the Country area 42 seats.

The first Legislative Assembly consisted of fifty-four members elected in thirty-two districts. As settlement extended and population increased, provision was made for increased representation, until in 1894 the electorates numbered seventy-four and the members 141. Under the Parliamentary Electorates and Elections Act of 1893, the State was divided into 125 electoral districts, each returning one member.

After the federation of the Australian States the question of a further reduction in the number of members in the State Parliament was submitted to the electors by referendum, and as a result the number of districts and of representatives was reduced to 90 in 1904.

The following table shows certain particulars as to parliamentary representation at the various dates on which the membership of the Assembly or the franchise was altered, and for each year in which elections have been held since 1901:—

Year of Election.	Number of Members of Legislative Assembly	Population per Member.	Proportion of persons enrolled to Total Population.	Total Number of Electors qualified to Vote.	Average number of Electors per Member.
			per cent.		
1856	54	5,200	15·8	...	...
1858	72	4,500	22·3	...	...
1880	108	6,900	25·2	...	...
1885	122	7,800	24·5	...	...
1891	141	8,100	26·7	...	...
1894	125	9,800	24·3	298,817	2,390
1901	125	10,900	25·3	346,184	2,769
1904	90	15,900	48·3	689,490	7,661
1907	90	17,000	48·8	745,900	8,288
1910	90	18,200	53·3	867,695	9,641
1913	90	20,500	55·1	1,037,999	11,533
1917	90	21,000	58·5	1,109,830	12,331
1920	90	22,800	56·1	1,154,437	12,827
1922	90	23,800	58·5	1,251,023	13,900
1925	90	25,300	58·8	1,339,080	14,879
1927	90	26,300	59·1	1,409,493	15,661

The number of individual electors cannot be ascertained for any period prior to the year 1894, as the franchise was based on the ownership of property, and electors were allowed to vote in each electorate in which they possessed the necessary qualification. The proportion of the population entitled to vote in those years, as shown above, has been calculated on the total number of votes to which the electors on the roll were entitled; they are, therefore, somewhat in excess of the actual proportions. Women voted for the first time in 1904, and since that year practically the whole of the adult population have been qualified to vote.

Votes cast at Elections.

The following table shows the voting at the elections held in New South Wales since the general election in 1894, when a system based on single electorates and the principle of "one man one vote" was introduced. The number of electors as stated for elections in the years 1894 to 1917, inclusive, represents the gross number enrolled, and the figures for the later elections indicate the number qualified to vote:—

Year of Election.	Electors Enrolled (whole State).	Contested Electorates.				
		Electors Enrolled.	Votes Recorded.		Informal Votes.	
			Number.	Percentage.	Number.	Percentage.
1894—Men ...	298,817	254,105	204,246	80·38	3,310	1·62
1895—Men ...	267,458	238,233	153,034	64·24	1,354	·88
1898—Men ...	324,339	294,481	178,717	60·69	1,638	·92
1901—Men ...	346,184	270,861	195,359	72·13	1,534	·79
1904 { Men ...	363,062	304,396	226,057	74·26		
Women ...	326,428	262,433	174,538	66·51		
Total ...	689,490	566,829	400,595	70·67	3,973	·99
1907 { Men ...	392,845	370,715	267,301	72·10		
Women ...	353,055	336,680	204,650	60·78		
Total ...	745,900	707,395	471,951	66·72	13,543	2·87
1910 { Men ...	458,626	444,242	322,199	72·53		
Women ...	409,069	400,139	262,154	65·52		
Total ...	867,695	844,381	584,353	69·20	10,393	1·78
1913 { Men ...	553,633	534,379	385,838	72·20		
Women ...	484,366	468,437	302,389	64·55		
Total ...	1,037,999	1,002,816	688,227	68·63	14,439	2·10
1917 { Men ...	574,308	525,681	328,030	62·40		
Women ...	535,522	487,585	295,354	60·57		
Total ...	1,109,830	1,013,266	623,384	61·52	5,844	·94
1920 { Men ...	593,244	593,244	363,115	61·21		
Women ...	561,193	561,193	285,594	50·89		
Total ...	1,154,437	1,154,437	648,709	56·19	62,900	9·70
1922 { Men ...	636,662	636,662	466,949	73·34		
Women ...	614,361	614,361	408,515	66·49		
Total ...	1,251,023	1,251,023	875,464	69·98	31,771	3·63
1925 { Men ...	678,749	678,749	489,126	72·06		
Women ...	660,331	660,331	435,853	66·00		
Total ...	1,339,080	1,339,080	924,979	69·07	30,155	3·28
1927 { Men ...	714,886	706,316	*591,820	*83·79		
Women ...	694,607	687,938	*558,957	*81·25		
Total ...	1,409,493	1,394,254	1,150,777	82·54	15,086	1·08

* Estimated, only partly recorded.

The analysis shown above indicates that the proportion of electors who fail to record their votes is large, even if due allowance is made for obstacles to voting, especially in sparsely-settled districts. The highest proportion of votes to enrolment, 82·54 per cent., was recorded in 1927. Previous to that the best record was 80·4 in 1874, when there was a strenuous contest on the question of fiscal reform; and the lowest proportion, 56·2 per cent. was recorded in 1920. The elections in the latter year were the first under the system of proportional representation, and the method of voting was somewhat complex, the electors being required to sign a statutory declaration before obtaining a ballot-paper and to record a preference for every name on the ballot-paper. Under these conditions an unusually large number of electors refrained from voting.

Before the elections in 1922 the method was simplified, the statutory declaration was abolished, and the recording of preferences was required only to the extent of the number of candidates to be elected. The proportion of voters to enrolment was greater at the elections of 1922 and 1925 than it had been at most elections under the system of single-member electorates. It is probable that provision for compulsory enrolment and the simplification of the method of voting contributed to this result, though there is little doubt that the main factor which influences the size of the polling is the intensity of interest in party issues.

The number of women exercising their right to vote has always been less, relatively and absolutely, than the number of men. The proportion of women voters to women enrolled has generally been about two-thirds, but in 1907 and 1917 it was approximately 60 per cent. and in 1920 only one-half.

It is noteworthy that, whereas at the elections of 1910 and previous years a greater proportion of electors enrolled recorded their votes at State than at Federal elections, the proportion was greater at Federal than at State elections from 1913 and 1920. The change was due doubtless to the dominance of war issues, for the proportion of votes cast at the State elections of 1922 rose to 69.98 per cent. as against a decline to 56.16 at the Federal elections of that year. At the Federal elections of 1925 compulsory voting was introduced for the first time.

Referendum.

A referendum relating to the prohibition of intoxicating liquor was held in New South Wales on 1st September, 1928, the question being, "Are you in favour of prohibition with compensation?" Voting was compulsory, and the result was as follows:—

Yes	357,684
No	896,752
Informal	13,683

In all, 1,268,119 votes were cast, equal to a proportion of 88.21 per cent. of persons enrolled and qualified to vote.

State Parliaments

A list of the Parliaments since 1889, when payment of members was instituted, is shown below:—

Number of Parliament.	Return of Writs.	Date of Opening.	Date of Dissolution.	Duration.	Number of Sessions.
				yrs. mths. dys.	
14	22 Feb., 1889...	27 Feb. 1889...	6 June 1891...	2 3 15	4
15	11 July, 1891...	14 July 1891...	25 June 1894...	2 11 14	4
16	3 Aug., 1894...	7 Aug. 1894...	5 July 1895...	0 11 2	1
17	10 Aug., 1895...	13 Aug. 1895...	8 July 1898...	2 10 28	4
18	13 Aug., 1898...	16 Aug. 1898...	11 June 1901...	2 9 29	5
19	17 July, 1901...	23 July 1901...	16 July 1904†	3 0 0	4
20	20 Aug., 1904...	23 Aug. 1904...	20 Aug., 1907†	3 0 0	4
21	26 Sept., 1907...	2 Oct. 1907...	14 Sept. 1910...	2 11 19	5
22	31 Oct. and 10 Nov., 1910†	15 Nov. 1910...	6 Nov. 1913...	2 11 26	5
23	23 and 29 Dec., 1913† ...	23 Dec. 1913...	21 Feb. 1917...	3 1 29	5
24	10, 16, and 23 April, 1917† ...	17 April 1917...	18 Feb. 1920...	2 10 8	4
25	21 April, 1920...	27 April 1920 ..	17 Feb. 1922...	1 10 25	3
26	19 April, 1922...	26 April 1922...	18 April 1925†	3 0 0	5
27	20 June, 1925...	24 June, 1925...	7 Sept., 1927...	2 2 17	5
28	29 Oct., 1927...	3 Nov., 1927...	Sitting* .....	.....	...

*30th April, 1930.

†Expired by effluxion of time.

‡Under system of second ballots.

The normal duration of Parliament is three years. Unless previously dissolved Parliament expires by effluxion of time three years after the day prior to the original date of the return of the writs.

On account of war conditions and the disturbed state of public affairs, it was deemed advisable to extend the 23rd Parliament to a period exceeding the three years fixed by the Constitution Act, and the Legislative Assembly Continuance Act, 1916, was passed to provide for an extension from three years to four years. The Parliament, however, terminated after 3 years and 60 days.

State Ministries.

The various Ministries which have held office since 1894, together with the duration in office of each, are shown below. The life of a Ministry is not co-terminous with the life of a Parliament. In seventy-four years under the present system there have been forty-four Ministries, but only twenty-eight Parliaments. Up to 3rd August, 1894, twenty-seven Ministries had held office.

Ministry.		In Office.		Duration.
Number.	Name.	From—	To—	
				yrs. mths. days.
28	Reid	3 Aug. 1894	13 Sept. 1899	5 1 11
29	Lyne	14 Sept. 1899	27 Mar. 1901	1 6 14
30	See	28 Mar. 1901	14 June 1904	3 2 18
31	Waddell	15 June 1904	29 Aug. 1904	0 2 15
32	Carruthers	30 Aug. 1904	1 Oct. 1907	3 1 2
33	Wade... ..	2 Oct. 1907	20 Oct. 1910	3 0 19
34	McGowen	21 Oct. 1910	29 June 1913	2 8 9
35	Hohaen	30 June 1913	15 Nov. 1916	3 4 16
36	Holman (National)	16 Nov. 1916	12 April 1920	3 4 28
37	Storey	13 April 1920	10 Oct. 1921	1 5 27
38	Dooley	10 Oct. 1921	20 Dec. 1921	0 2 11
39	Fuller... ..	20 Dec. 1921	20 Dec. 1921	About 7 hours.
40	Dooley	20 Dec. 1921	13 April 1922	0 3 24
41	Fuller (Coalition)	13 April 1922	17 June 1925	3 2 4
42	Lang	17 June 1925	26 May 1927	1 11 9
43	Lang	27 May 1927	18 Oct. 1927	0 4 22
44	Bavin... ..	19 Oct 1927	*	..

* In office 30th April, 1930.

COST OF STATE PARLIAMENTARY GOVERNMENT.

The following statement shows the cost of State Parliamentary Government in New South Wales during recent years. Expenses of Federal and Local Government are not included:—

Head of Expenditure.	1915-16.	1925-26.	1927-28.	1928-29.
	£	£	£	£
Governor—				
Salary	5,000	5,000	5,000	5,000
Salaries, etc., of Staff... ..	3,549	4,028	4,560	4,198
Other expenses	1,547	1,945	1,493	978
	10,096	10,973	11,053	10,176
Executive Council—				
Salaries of Officers ... ..	...	570	460	839
Other expenses ... ..	...	333	268	...
	...	903	728	839
Ministry—				
Salaries of Ministers	11,040	23,420	23,420	23,414
Conferences, Special Reports, etc. ...	5,244	1,078	3,736	283
	16,284	24,498	27,156	23,697
Parliament—				
Legislative Council—				
Salaries of President and Chairman of Committees ...	1,220	1,900	1,900	1,900
Railway passes for Members ...	6,070	15,906	18,572	18,213
Postage for Members ... ..	...	...	98	40
Legislative Assembly—				
Salaries of Speaker and Chairman of Committees	1,740	2,790	2,790	2,790
Allowances to Members*	40,335	67,417	60,052	69,378
Railway passes for Members ...	10,387	17,462	18,010	18,396
Postage for Members	1,770	2,700	2,689	2,692
Both Houses—Joint expenditure—				
Standing Committee on Public Works—				
Remuneration of Members ...	3,599	3,966	4,112	4,992
Salaries of Staff and contingencies	2,626	2,145	2,109	3,004
Salaries of Reporting Staff ...	} included in "other" below.	8,269	9,541	10,099
Library—Salaries of Staff ...		2,541	2,826	2,875
Contingencies... ..		942	958	986
Other Salaries of Staff		23,516	28,861	26,983
Printing—Hansard	6,689	6,189	3,077	6,865
Other	14,967	13,562	12,201	12,145
Other Expenses	24,490	5,478	5,012	3,653
	113,893	174,783	172,808	185,011
Electoral—				
Salaries	1,123	2,104	3,384	2,456
Contingencies	56,491†	8,195	77,880	58,131†
	57,614	10,299	81,264	60,587
Royal Commissions and Select Committees	4,114	7,790	5,082	2,452
Grand Total	£ 202,001	229,246	298,091	282,762
Per head of population	2s. 2d.	2s. 0d.	2s. 6d.	2s. 4d.

* Excluding salaries of Ministers, Speaker, and Chairman of Committees. † Includes Liquor Referendum £30,244. ‡ Includes Liquor (Prohibition) Referendum £54,962.

In considering such a table as shown above it is necessary to remember that there is no clear line of demarcation between costs incurred in respect of parliamentary government and the costs of ordinary administration. This is to be observed particularly in regard to ministers of the Crown who fill dual roles as administrative heads and parliamentary representatives. Similar difficulties arise in regard to Royal Commissions, which are, in many cases, partly administrative inquiries. In the absence of any means of dissecting the expenditure under these headings the whole of it has been treated as incidental to the system of parliamentary government. On the other hand such factors as the costs of ministerial motor cars and the salaries of ministers' private secretaries are omitted from account as appertaining mainly to administration.

The cost of Parliamentary Government included the cost of the triennial elections in 1927-28 and of the prohibition referendum in 1928-29. However, it represented less than $1\frac{1}{2}$ per cent. of the total expenditure from Consolidated Revenue during the latter year.

The foregoing statement does not, however, represent the total cost of Parliamentary Government because it excludes the expense of Federal government. During the year 1927-28 this amounted to £473,288 for the whole Commonwealth, equivalent to 1s. 6d. per head of population.

THE COMMONWEALTH.

A detailed account of the inauguration of Federation and the nature and functions of the Federal Parliament in their relation to the State was published in the Year Book for 1921 at pages 38-40 and 625.

The federation of the six Australian States was inaugurated formally on 1st January, 1901, for their mutual benefit in matters upon which it was agreed that joint action was desirable. The broad principles of federation were:—The transfer of limited and defined powers of legislation to a Federal Parliament consisting of a Senate and a House of Representatives, the former being a revisory Chamber wherein the States are equally represented, and the latter, the principal Chamber, consisting of members elected from the States in proportion to their population; complete freedom of action for the State Parliaments in their own sphere; a High Court to determine the validity of legislation; and an effective method of amending the Constitution. State laws remain operative in all spheres until superseded by laws passed by the Federal Parliament in the exercise of its assigned powers. State laws, however, are invalid only to the extent of their inconsistency with valid Federal enactments.

The Senate consists of 36 members, six being elected in each State.

It is prescribed by the Constitution Act that the number of members in the House of Representatives shall be as nearly as practicable twice the number of senators. The number to be elected in each State is determined in the following manner: A quota is ascertained by dividing the number of people of the Commonwealth by twice the number of senators, then the number of the people of each State is divided by the quota. The result indicates the number of representatives for each State, one more member being chosen if on the division there is a remainder greater than one-half of the quota. It is provided also that at least five members shall be elected in each original State. The representation of the States may be adjusted in every fifth year.

The number of representatives elected from the various States to the House of Representatives in 1929 was as follows:—New South Wales, 28;

Victoria, 20; Queensland, 10; South Australia, 7; Western Australia, 5; Tasmania, 5. In addition, one representative of the Northern Territory was elected to attend and participate in debates without having the right to vote.

For the purpose of electing representatives to the Senate of the Federal Parliament, each State is treated as one constituency, returning six members, each for six years, three of whom retire triennially. The members of the House of Representatives are elected for three years from single-member constituencies. The system of voting is preferential, and the electoral system is similar to that of the State. In 1924 the Commonwealth Electoral Act was amended to make provision for compulsory voting.

The voting at elections of members of the House of Representatives from New South Wales has been as follows:—

Year.	Electors Enrolled (Contested Divisions only).		Votes Recorded.		Percentage of Votes Re- corded to Electors Enrolled.			Informal Votes.	
	Men.	Women.	Men	Women.	Men.	Women.	Total.	Number.	Proportion per cent.
1901	315,962	...	215,105	...	68·08	...	68·08	4,070	1·70
1903	303,254	274,763	164,133	118,381	54·12	43·08	48·88	7,834	2·77
1906	363,723	314,777	216,150	141,227	59·43	44·87	52·67	11,705	3·28
1910	431,702	379,927	294,049	207,868	68·11	54·71	61·84	8,002	1·59
1913	554,028	482,159	405,152	312,703	73·13	64·85	69·28	22,262	3·10
1914	491,086	429,906	351,172	257,581	71·51	59·92	66·10	14,816	2·43
1917	484,854	447,437	370,618	292,925	76·44	65·47	71·17	19,874	2·98
1919	527,779	508,129	385,614	308,183	73·06	60·65	66·97	26,517	3·82
1922	517,388	498,209	330,362	239,980	63·85	48·17	56·16	25,823	4·53
1925	640,533	627,214	581,678	563,215	90·81	89·80	90·31	21,389	1·87
1928	584,545	576,857	547,095	534,817	93·59	92·71	93·16	52,229	4·83
1929	624,068	614,550	591,438	583,007	94·77	94·87	94·82	33,158	2·82

The percentage of voters increased steadily at the elections during the period 1903-1913. The improvement was not continued in 1914, when the electoral contest was modified in consequence of the outbreak of war in Europe, but in 1917, when considerable political feeling was excited by the question of compulsory military service, the percentage was higher than at any Federal elections before the introduction of compulsory voting at the elections of 1925.

At the Senate elections of 1928, the total number of votes cast was 1,244,918, of which 109,720 or 8·08 per cent. were informal. Included in the votes cast were 1,118,772 ordinary votes, 8,953 postal, 106,924 absent, 4,330 under Section 121 (persons whose names were not on roll by reason of error, etc.), and 227 declaration votes. The proportion of votes recorded to electors enrolled was 93·21 per cent.

FEDERAL REFERENDA.

Analyses of the voting on Federal questions submitted to referenda were shown in the 1921 edition of this Year Book at page 42, and in the 1926-27 edition at page 47.

On 17th November, 1928, the question of amending the Federal Constitution in such a way as to permit the Commonwealth to make statutory provision in respect of the agreement relating to the public debts of the States was submitted to referendum. Statistics of the polling in New South Wales were as follows:—Electors enrolled, 1,335,660; votes polled, 1,244,918; affirmative votes, 754,446; negative votes, 415,846; informal, 74,626.

SEAT OF FEDERAL GOVERNMENT.

An outline of the provisions of the Constitution Act with respect to the seat of government and the development of the territory was published on page 48 of the Year Book for 1926-27. The Federal Parliament commenced its regular sittings at Canberra on 9th May, 1927.

DEFENCE.

UPON the inauguration of the Commonwealth the duty of providing for the defence of Australia devolved upon the Federal Government, and the Parliament of the Commonwealth has paramount power, subject to Imperial approval, to legislate for the naval and military defence of Australia, and for the control of the forces to execute and maintain the federal laws. The Constitution provides that the States may not raise nor maintain forces, but enjoins the Commonwealth to protect every State against invasion, and, on the application of the executive government of the State, against domestic violence. It is provided in the Defence Act that the citizen forces may not be called out nor utilised in connection with an industrial dispute.

In terms of the Defence Act male citizens between the ages of 18 and 60 years are liable for service in the citizen forces for home defence in time of war. Male citizens are liable also to undergo military or naval training between the ages of 12 and 26 years.

The system of compulsory training was brought into operation on 1st January, 1911. The duration of the training in each year is prescribed by the Act, the trainees being liable for service in the following age groups:—Junior cadets, 12 to 14 years of age; senior cadets, 14 to 18 years; citizen forces, 18 to 26 years. The duration of the training was curtailed during the war period, also in 1921 and in 1922 owing to the resolutions passed at the Washington Conference on limitation of armaments. At the end of 1929 compulsory training was suspended and arrangements were commenced for a reorganisation of the defence forces on a voluntary basis.

During recent years training was commenced by senior cadets in the year in which they reached the age of 17 years, one year later they were transferred to the citizen forces to undergo courses during a further period of three years. The training of boys under 16 years as part of the defence system was suspended in 1922, though they were still required to register during the months of January and February of the year in which they reached the age of 14 years.

Junior cadet training in relation to boys of the ages of 12 and 13 years consisted almost entirely of a course of physical drill on modern lines. Legally it is universal and compulsory, but, in practice, it was confined to the larger schools, where boys of the prescribed ages were trained unless physically incapacitated. The system was carried out by school teachers advised by the officers of the Department of Defence. On 30th June, 1929, there were 18,720 junior cadets in training in schools located within the training areas in New South Wales (2nd military district).

Senior Cadet Registrations, etc.

Statistics of the registration and examination of senior cadets in New South Wales are as follows:—

Year ended June.	Regis- trations.	Medically Examined.	Classified Fit.		Classified Unfit.*		Number actually in Training.
			Number.	Propor- tion.	Number.	Propor- tion.	
1926	38,172	7,672	5,965	per cent.	1,707	22-25	6,196
1927	37,380	7,927	6,075	77-75	1,852	23-37	5,693
1928	39,407	8,472	6,278	76-63	2,194	25-49	6,150
1929	44,758	9,357	6,915	74-51	2,442	26-10	6,568
				73-90			

*Including temporarily unfit.

The number of naval senior cadets in training at 30th June, 1929, was 1,885.

MILITARY DEFENCE.

The Commonwealth is organised for defence purposes into six military districts, corresponding as far as practicable with the political divisions into States. The second military district represents the State of New South Wales, excepting the far North Coast and the Barrier district, which are attached to Queensland and South Australia respectively, and the Deniliquin, Moama, and Corowa districts attached to Victoria.

A military college is maintained at Duntroon in the Federal Capital Territory for the training of officers.

The following table shows the strength of the military forces of the Commonwealth on 1st February, 1929:—

Military District.	Perma- nent.	Citizen Forces.	Officers on Un- attached List.	Reserve of Officers.	Chap- lains.	Total.
Headquarters	189	8	7	...	7	211
1. Queensland	148	5,462	49	967	52	6,672
2. New South Wales	665	18,160	103	2,900	125	21,953
3. Victoria	478	14,632	88	2,630	111	17,939
4. South Australia	86	4,148	30	736	37	5,037
5. Western Australia	124	2,476	49	640	25	3,314
6. Tasmania	65	1,290	20	282	17	1,674
Total	1,755	46,176	340	8,155	374	56,800

NAVAL DEFENCE.

The naval defence of Australia was undertaken by the Imperial Navy under agreement between the Imperial Government and the Governments of Australia and New Zealand until 1913, when the Imperial squadron was replaced by Australian war vessels.

The fleet of the Australian Navy consisted in January, 1929, of 2 cruisers, 2 light cruisers, 11 destroyers, 1 flotilla leader, 2 depot ships, 1 seaplane carrier, 2 submarines, 4 sloops, 1 motor boat, and 2 fleet auxiliaries.

The seagoing force consisted of 450 officers and 4,409 ratings on active service in the Royal Australian Navy in January, 1929. Ninety-four per cent. of the personnel were Australians, the remainder being on loan from the Royal Navy.

Reserves of officers and men for the Royal Australian Navy were provided from four services, viz:—(a) Ratings who have completed periods of service; (b) officers permanently employed in the mercantile marine; (c) compulsory trainees of citizen forces; (d) volunteers enrolled for service in any capacity in time of war or emergency. The personnel of the Royal Australian Naval Reserve in January, 1929, comprised 253 officers and 6,919 men. There were, in addition, seagoing reserves of 44 officers, fleet reserves of 121 men and volunteer reserves of 47 officers and 20 men, besides auxiliary services of 42 officers and 180 men.

Junior officers are trained at the Naval College, Jervis Bay, which contained 54 cadet midshipmen undergoing training in January, 1929. The general depot of the navy is at Western Port, Victoria, where the more advanced training of officers and the training of the men is conducted.

AIR DEFENCE.

An Australian Air Force for defence purposes was established in 1921 by proclamation under the Defence Act. It formed part of the military forces until the Air Force Act was passed in September, 1923, to provide for its administration as a separate branch of the defence system. The present approved establishment of the Permanent Air Force is 110 officers and 860 airmen, and of the Citizen Air Force 54 officers and 285 airmen.

HISTORY.

THE name "New South Wales" was given to the whole of the eastern part of Australia in 1770 probably by Captain Cook, and for a short period (1814 to 1840) the distant islands of New Zealand were among the dependencies of the colony founded at Port Jackson in 1788.

The early history of New South Wales traces its transition from a Crown Colony, used as a penal settlement, to a self-governing dominion through a period of sixty-eight years. This period was marked by a process of division of its huge area, nearly half the size of Europe, into six smaller political units and by a slow development of settlement carried out, often in defiance of the Government, by the few hardy pioneers who crossed the world to make their homes in this new land of the antipodes.

New South Wales inherited current British traditions of government and public institutions, and in 1856 received a flexible frame of government on the English model. The democratic spirit natural in a new land moulded the political constitution and the form of society on modern principles of equality without any bitter struggle for freedom. This fact, combined with the absence of virile native races and of foreign aggression, has rendered the history of the State unusually placid, so that its development, at all events until the European War (1914-18), was moulded almost entirely by economic factors.*

The following statement indicates chronologically the main events in the development of the State up to the introduction of responsible government in 1856:—

- 1770. Captain Cook discovered the eastern coast of Australia.
- 1788. First settlement founded.
- 1791. First grant of land to settlers.
- 1793. Free immigrants arrived.
- 1794. Settlement established on the Hawkesbury River.
- 1795. First plough introduced.
- 1797. Merino sheep imported. Coal discovered at Coal Cliff and Port Hunter.
- 1801. Hunter River coal mines worked.
- 1803. First newspaper published (*Sydney Gazette*).
- 1805. MacArthur began sheep farming at Camden.
- 1807. Merchantable wool first exported (245 lb.).
- 1813. Blue Mountains crossed.
- 1814. Civil Law Courts created. New Zealand proclaimed a dependency of New South Wales.
- 1815. Settlement founded on Bathurst Plains.
- 1817. Exploration of interior begun.
- 1821. Settlement at Port Macquarie.
- 1823. First Constitution. Trial by jury instituted.
- 1824. Censorship of press abolished.

* A brief review of the expansion of population, and of rural settlement, will be found in later chapters of this Year Book, and of the early forms of Government in the Year Book for 1921.

- 1825. First land regulations issued. Tasmania practically separated from New South Wales. Boundary of New South Wales moved westward.
- 1827. Colony became self-supporting.
- 1828. Second Constitution. All English laws applicable to New South Wales brought into force. Assisted immigration introduced. Richmond River discovered.
- 1831. First land sales.
- 1834. Settlement established at Twofold Bay.
- 1836. Religious equality established. South Australia founded as a separate colony.
- 1838. Assignment of convicts ceased.
- 1840. Transportation of convicts to New South Wales abolished. New Zealand separated from New South Wales.
- 1842. Third Constitution—Representative Government. Settlement at Moreton Bay proclaimed.
- 1843. Financial crisis.
- 1851. Gold discovered. Victoria separated from New South Wales.
- 1852. First trade union formed. Sydney University opened.
- 1855. First railway built.
- 1856. Fourth Constitution—Responsible Government.

1856-1872.

The Constitution Act of 1856 conferred a system of government, closely modelled on that of the United Kingdom, upon a community of one-quarter of a million people in a territory (omitting Queensland) two and a half times as large as the United Kingdom. Of this community one-third had newly arrived in the gold rushes, and of the remainder few had been born in the country. With the continuance of gold finds, a very rapid proportional growth of population set in, and in the next fifteen years the number of inhabitants doubled. It is not surprising, therefore, that in these circumstances and in the lack of an intimate knowledge of the workings of the machinery of parliamentary government the new administration was at first unstable and the times were somewhat lawless. In the first five years no less than seven Ministries held office, and four Parliaments sat. But gradually the workings of the new constitution became smoother. Manhood suffrage and election by secret ballot were introduced in 1858, and at the first constitutional crisis in 1861, involving the fate of the Land Bills, the will of the electorates gained the recognised supremacy which it has since held.

The lawless instincts of certain elements of the population were excited in some measure by the turbulence of the gold rushes, and found expression in the anti-Chinese riots on the gold-fields of Lambing Flat in 1861; in a revival of bushranging from 1861 to 1867 after thirty years' quiescence; and in the wild scramble for land under the loosely enacted laws of 1861, which created bitter conflicts between free selectors and squatters, and left wide scope for malpractices.

But when the gold fever began to subside in the seventies many newcomers settled down as landholders, and sheep-raising rapidly became the staple industry of the State. The industrial depression of the sixties passed away, the new Government took firm control, and an era of prosperity and rapid progress began. With the separation of Queensland in 1859 the territory of New South Wales became confined within its present limits. Religious equality was consummated in 1862 by the abolition of State aid

to religion, and in 1866 all schools receiving State aid were placed under Government control. The construction and working of railways were made almost exclusively Government functions, and lines were opened from Newcastle to Maitland (1857), from Sydney to Penrith (1862), and to Goulburn (1869). Telegraphic communication was established between Sydney, Melbourne, and Adelaide in 1858 and Brisbane in 1861, while the cable service to England was opened for business in 1872.

1873-1893.

Rapid as had been the disorderly progress since the discovery of gold, the country now settled down to orderly ways, and yet more rapid headway was made in the next twenty years. Although the activity in gold mining subsided, immigrants continued to arrive freely; but after reaching half a million in 1871, the population only attained the first million in 1887. Flocks grew, and New South Wales soon gained importance as one of the main sources of the world's supply of wool. Indeed, in 1891 the number of sheep in New South Wales reached its highest level. The tin-mining fields were opened in 1872, the richest silver-lead fields of the world were discovered at Broken Hill in 1883, and coal mining steadily increased in importance. This rapid expansion of the primary industries produced rapid expansion throughout the country. A vigorous policy of public works was initiated by the Government in 1872 and continued until 1885; during the period of twenty years under review nearly £50,000,000 were borrowed by the Government and expended upon developmental works, principally railways. Rail communication was established with Orange by 1877, and lines were extended to the southern border by 1883, and the northern by 1889. The first telephonic services were established in Sydney in 1880.

Some national ideals began to take definite shape, and settled policy in many provinces of government became the result. The duration of Parliament was limited finally to three years in 1874; the education question was decided in 1880, when a national system of secular and compulsory education for all children between the ages of 6 and 14 years was introduced; in 1888 the further influx of Asiatics was checked effectively, and the principle of "White Australia" firmly established. At the same time the serious difficulties of the community began to assume formidable proportions in the land and labour problems. Although the bitter struggle for the possession of land subsided as years passed, it was found that the policy of disposing of Crown lands by the free and easy methods of earlier years produced a pronounced shortage of land for settlement. Parliament was engaged frequently with the task of promoting genuine and closer settlement, and of reconciling the conflicting rights and interests of landholders and land seekers. The practice of securing possession of land by "dummying" was prohibited in 1875, and in 1884 stability of tenure was granted to pastoral lessees. In 1885 the present system of land administration by local land boards in land board districts and territorial divisions was introduced, placing the disposal of this most important national asset on an orderly basis, although the problem of promoting closer settlement remained unsolved.

The question of fiscal policy was a prominent issue at Parliamentary elections during this period, and a change of Government sometimes involved a reversal of existing tariff arrangements. Thus in 1874 customs taxes were abolished, except for a few specific duties on liquor and narcotics. A Protectionist tariff, introduced in 1886, was repealed in the following year, but was re-imposed in 1892, to be revoked four years later after a Free-trade Party had gained office.

Immigration from Europe to New South Wales was not at any period nearly so great as to the United States, and during the period 1877-1886—the most active decade of immigration ever experienced in New South Wales—the net gain of population by migration was only 200,000. Yet, despite the vast territory of the State, people settled in the towns and city rather than in rural districts, with the consequence that the population steadily became urban rather than rural in character, and the predominant interests industrial in the narrow sense. This development largely determined the course of politics, and progress in the country, and its influence became clearly apparent in a growing industrial agitation. These years were affected by frequent strikes, and in the late eighties the effects of industrial ferment apparent in other countries were marked by the spread of socialistic doctrines, the visit of propagandists advocating a new social order and the strong expressions of sympathy toward the cause of strikes abroad. In 1881 a Trade Union Act was passed removing all existing legal restrictions on combinations of workmen for industrial purposes. These events produced a very rapid growth in trade unionism, which became a most important factor in the economic life of the community, and had its counterpart among organisations of employers.

While these developments were proceeding the commercial prosperity began to show signs of weakening, and after 1885 the volume of trade contracted, the programme of public works was curtailed, and unemployment became rife. These circumstances further embittered industrial relationships, and in the prevailing discontent the efforts of the new unions to improve conditions of employment culminated in the maritime strike of 1890—one of the most momentous industrial events in the history of the State. The strike failed, and unionism began to turn its attention to parliamentary action to further its industrial aims. Recourse to political activity led to the development of a typically Australian form of unionism, and to the rise of the Labour Party as a power in Parliament; it induced a pronounced type of party government, characterised by pledges and “caucuses,” and a new cleavage of political interests was formed.

These important events were accompanied by the worst financial crisis experienced in the State. The industrial depression gradually became more severe after 1885, and a series of world financial upheavals, signalised by the Baring crisis of 1890 in England, served to aggravate local conditions. In 1893 the business failures and alarms of two years' duration culminated in the suspension of payments by thirteen out of twenty-five local banks, with consequent disaster to the commerce and industry of the State. This severe experience was productive of much good. More discipline was introduced into the financial system, securities were more carefully scrutinised before acceptance, certain bogus institutions ceased to exist, the banks associated more closely, and an office was opened for daily clearances between banks.

Moreover, the withdrawal of English capital from local investments encouraged local saving and spontaneous internal development.

1894-1900.

After the financial crisis industrial depression became more acute; it was intensified by the continuance of low prices for wool, the withdrawal of British capital, a succession of bad seasons, and the diminution of Government expenditure from loans. Immigration practically ceased in 1893 and did not revive until 1905, unemployment became prevalent, conditions of employment ceased to improve, and some emigration was evident. At first a number of strikes occurred, with disaster to the strikers; trade unionism lost power and many unions decayed; but although the numerical strength of the Labour Party in Parliament decreased, it was

sufficient to influence the passage of some most important industrial legislation and to effect a change of Government in 1899. This movement was consummated in 1901 by the enactment of provision for a system of compulsory industrial arbitration, which has had a most important influence on the subsequent economic development of the State. These matters and the important questions of federation and fiscal policy dominated politics. The decision in 1899 of the six Australian States to federate ultimately brought about a reversion from the virtual "free-trade," adopted by the State Government in 1896, to "protection," introduced by the Commonwealth Government in 1901. A policy of non-political control of appointments and promotion in the civil service was adopted in 1895.

Most important changes had gradually come about in the primary industries. Wheat-growing expanded steadily, and an export trade was established in 1898; refrigeration was applied to sea cargoes, and an important oversea trade in butter and frozen meat grew up. The prices realised for wool improved gradually after 1896, and as buyers continued to seek wool at its source, growers benefited by the speedy returns from Sydney wool sales. With these developments the industrial outlook brightened, and a period of remarkable prosperity opened.

1901-1910.

In these happy circumstances the Commonwealth of Australia came into being. The new Government was clothed with a wide range of powers, concurrent with those of the State Government, and in a number of important Federal matters, viz., customs, excise, defence, coinage, currency, bounties on production and export, naturalisation, extradition, post and telegraphs, lighthouses, quarantine, and certain minor matters it was given exclusive authority. Henceforward the activities of the Commonwealth were important factors in determining the course of State development. A policy of encouraging local manufactures was adopted in 1901, when, in October, uniform customs duties were imposed; a Federal High Court was established with a general appellate jurisdiction—in some cases final; in 1904 a Commonwealth Court of Conciliation and Arbitration was established with jurisdiction in interstate industrial matters.

With the introduction of a system of industrial arbitration, there set in more intense development in the political and industrial systems of the State, and an era of sectional combination to secure common objects. Trade unionism spread rapidly as workers combined to obtain the assistance of the Court of Arbitration in improving their working conditions. Employers organised in order to meet the situation unitedly, and an Employers' Federation was founded in 1903. In Parliament a new significance attached to party organisation, so that with the continued advocacy of solidarity, the pledge, party platform, party meetings and caucuses, the system sometimes called "machine politics" developed peculiarly local characteristics. These developments in the industrial and political spheres had their counterpart in the commercial world in the rapid growth of joint stock companies to handle business on a large scale, and in the formation of trusts and combines for the more effective prosecution of business. From time to time restrictive legislation was introduced.

Although the conflict of party interests became more strenuous, a new political and social consciousness seemed to awaken and marked progress was made. State assistance by pensions for indigent aged persons was provided in 1900 and for invalids in 1907; payment of compensation to workmen in cases of industrial accident was prescribed in 1910, and effective measures were taken in 1908 to abolish and prevent a system of sweating female and juvenile workers. An instalment of the principle of paying wages according to needs was introduced in 1905, and the first official

estimate of the living wage was made in 1907. An Act to protect the property of married women (1897) was followed in 1902 by the introduction of the women's franchise. Education again became a topic of vital interest in the community, and, after a strong agitation, a series of far-reaching reforms were begun in 1904, including the introduction of free primary education in 1906 and of reforms in the syllabus, the training of teachers, and, after 1910, the enlargement of the system of secondary and University education.

This period was characterised by unsurpassed economic development, based upon the expansion of the rural industries and the improvement of foreign markets for primary products. Immigration revived in 1905, new tenures of land were introduced, a system of State finance was established to assist settlers, the Murrumbidgee Irrigation Scheme was commenced, and the tenure of land in the Western Division was placed on a liberal basis. Moreover, local government, which after the adverse experiences of the premature system of the forties had been confined to a small number of towns, was extended in 1906 to include hitherto unincorporated districts as "shires" covering three-fifths of the area of the State.

1911-1914.

The period of prosperity, during which the State had regained its economic stability and the Federal Government had developed strength, was followed by a new movement towards assuming the responsibilities of nationhood. Much attention was devoted to schemes of local defence under the ægis of the Commonwealth Government. The nucleus of an Australian fleet was established, and a system of compulsory military training was inaugurated for home defence. A system of local coinage was introduced: the Federal Government took charge of the issue of bank notes; and the Commonwealth Bank of Australia was established. In 1911 wireless telegraphy was introduced, and the first successful aeroplane flight was made.

Social progress continued, and the most important reforms in the primary system of education were followed by a wide extension of facilities for secondary and University education, State aid in the form of bursaries being provided in cases of financial disability. At the same time, the scope of the University was extended and provision made for an elective body of control; technical education received more attention, continuation schools and rural schools were established, and greater provision was made for medical attention to school children. The Government assumed greater responsibility in regard to housing by providing and carrying out schemes for garden suburbs, and by making advances to persons building homes. Baby clinics were opened, and maternity bonuses were instituted by the Federal Government to provide financial assistance at childbirth.

Each election after 1901 saw a greater proportion of pledged labour representatives returned to Parliament, particularly in the Federal Houses. Finally in 1910 the new party assumed office in both Federal and State Governments, and since then has been either the largest or second largest party in Parliament. Industrial problems constantly occupied the Legislature; much attention was given to matters of arbitration and to the problem of avoiding strikes and lockouts, which were constantly dislocating the course of industry. The principle of the "living wage" was established firmly and provision made for its regular determination. Prices, employment, and monopolies in restraint of trade were all matters of live interest, and were made subjects of close inquiry both State and Federal. The rise in the cost of living, which had been steady during the previous decade, proceeded more rapidly, and with it came the need for frequent re-adjustment of wages, which, coupled with questions of hours, union principles,

and working conditions, led to continual agitation among the new working-men's organisations, which were relatively of greater extent in New South Wales than in any other part of the world.

The land problem received further attention. A graduated land tax was imposed upon large estates by the Federal Government to induce closer settlement through their subdivision; additional tenures on a leasehold basis were created to stay the process of alienation; the Murrumbidgee Irrigation Scheme was advanced sufficiently to receive settlers, and an additional scheme on the Murray River was agreed upon.

1914-1920.

The outbreak of the European War in 1914 intruded a dominating external influence into a local situation fraught with great possibilities of economic and social progress. Although the principle of "business as usual" was urged widely at first, it was soon found that the dislocation of trade and the necessary mobilisation of the national resources to meet the demands of the times produced a readjustment of economic conditions and of political parties and policies which diverted the normal trend of development.

The successful prosecution of the war became the dominant issue, and the High Court decided early that the Commonwealth Government could do legally anything which might conduce to the successful prosecution of the war (subject, of course, to Imperial control). As a result wider powers were assumed in the Federal sphere than were exercised ordinarily in time of peace. A War Precautions Act placed power of issuing regulations in many important matters in the hands of the Federal Executive Government. A censorship of the press was established; trade and commerce were regulated closely to prevent trade with enemy countries and to secure adequate supplies of raw materials for the Imperial Government; investment and the import of luxuries were restricted in the interests of finance; unprecedented loans for war purposes were floated and subscribed on the local markets; prices were regulated, and comprehensive schemes of government control and marketing of primary products were initiated. Great numbers of men in the prime of life enlisted for war service, and large military encampments were maintained. Consequently production languished, but the phenomenal rise of prices due to war conditions and to the immense expenditure of money for war services and supplies created an air of artificial prosperity, which endured until the close of 1920.

Domestic politics were disrupted in 1916 on the issue of conscription for service abroad, which was submitted as a referendum to the people. The Labour Party, which held office in both State and Federal Governments, became sharply divided, and with the resultant expulsion from the Labour movement of conscriptionist members of Parliament, including the Premier and most members of the Cabinet, a new party distribution was effected and Labour lost office. The industrial ferment of previous years continued, and was increased by these events and by the failure of wages to rise as fast as the cost of living, although in many cases wartime profits were large. The discontent in certain sections was intensified by the imprisonment of a number of members of a well-known revolutionary body in connection with the outbreak of a series of disastrous fires in Sydney. The prevailing discontent finally burst out in 1917 into the most widespread strike in the history of the State. The strikers were, however, defeated by the introduction of loyalist workers from the country districts and from Victoria, and by the unyielding attitude of the Government, and much bitterness was engendered by the conflict.

This event led in the following year to renewed attempts to secure industrial peace. A Board of Trade was appointed, with power to promote amicable relationships between employers and employees and to declare regularly a living wage. This power was exercised in 1919 to review the whole problem of the cost of living, and a substantial increase in rates of wages resulted immediately.

But the close of the war and the sudden world-wide rise of prices to unprecedented heights led to yet greater economic disorder and to a recrudescence of industrial disputes.

Amid the prevailing discontent an election was held in 1920, under the system of proportional representation. The Labour Party was returned with a bare majority over the Nationalist and Progressive Parties on a policy of more effective price control, profiteering prevention, land legislation, and adjustment of finance.

Social and industrial progress continued. Further improvements were made in the system of education by providing for compulsory regular attendance of children of school age, by close supervision of private schools, the establishment of a Conservatorium of Music and a State Orchestra. All legal disabilities preventing women from holding public office or entering the learned professions were removed, the benefits of workmen's compensation were extended to all classes of workers, facilities for legal aid to poor litigants were provided, the State Housing Scheme was extended, a Fair Rents Court was constituted, and through private subscription large funds were established for the care of soldiers and their dependents.

1921-1928.

During 1921 the major industrial and political problems centred round the readjustments necessary to meet the altered conditions caused by the collapse of the boom in trade and commerce which had followed the world-wide decline in prices. Frequent demonstrations were made by the unemployed, and extensive relief was given, but at no period was unemployment so widespread as in older countries.

During the year the working-week was reduced from forty-eight to forty-four hours after exhaustive inquiry, and the Board of Trade declared a reduction of 3s. in the basic wage to £4 2s., which the Government refused to put into operation.

At the close of the year, a political crisis was precipitated by the resignation of the Speaker of the Legislative Assembly, and as an outcome the Labour Government was defeated in Parliament after holding office for two years. A Nationalist Ministry was formed, but resigned within a few hours of taking office, and a general election was held in March, 1922, again under the system of proportional representation. Large numbers of candidates presented themselves, and a new political group appeared—the Country Party—which gained a number of seats. This party had appeared already in the elections of 1920 as Progressives and in the Federal elections of 1919. It had associated itself with movements for forming separate political units in the northern and southern parts of the State, and had conducted much propaganda on behalf of country interests. None of the three parties gained an absolute majority, but, upon the resignation of the Labour Ministry, a Nationalist Government was formed with the support of the Country party.

With the reversal of the state of parties at the elections, extensive changes of policy were made. Economy in administration, enforcement of the reduced living wage, reversion from a forty-four to a forty-eight hours

week, modification of industrial arbitration, and the abolition of restrictions on trade and industry became features in the policy of the Government. Several State industrial undertakings which had been operating at a financial loss were closed down. Activity in immigration was revived, and the problem of land settlement was subjected to considerable investigation.

Steps were now taken to introduce a measure of law reform whereby effete laws were removed from the Statute Book. In addition, the extent of arbitration rights was restricted, so that rural workers and civil servants were removed from the jurisdiction of the Arbitration Courts. The education system was modified by remodelling the examination system and imposing fees upon admission to certain secondary schools. The number of applicants for secondary education ceased to increase and the continuation courses of a commercial and technical character became more popular. Rural schools, providing elementary agricultural training, were opened in a number of country centres. The problem of providing adequate accommodation for children in primary schools had become acute, and was vigorously attacked, sums of money being made available from loan funds for building purposes. The demand for musical education continually expanded, and the Conservatorium of Music found difficulty in accommodating all applicants. However, the State Orchestra, which had operated actively for over two years, was disbanded in September, 1922, through financial failure.

In 1923 a comprehensive scheme of rural development was propounded, partly as an outcome of the investigations of the Select Committee on Agriculture in 1920 and 1921. A migration agreement was made in 1925 between the State, Commonwealth, and Imperial Governments, with the object of placing oversea settlers on land in the States, loan moneys being supplied at a low rate of interest for the development of settlement. A measure was passed to provide a complete basis for co-operative enterprise for rural and urban development and credit, to provide new facilities for self-help, and to bring the benefits being reaped from co-operation in other lands within reach of producers and consumers in New South Wales. To this end a conference of producers and consumers was held at Bathurst in September, 1926, to consider the problem of marketing and to formulate schemes for bringing producer and consumer into closer association. From 1925 onwards considerable attention was paid by both the State and Federal Parliaments to the problem of marketing rural products locally and abroad, and a number of enabling Acts were passed for the creation of marketing control boards. In addition, Acts were passed providing for the registration of land agents, and of farm produce agents.

In response to a lengthy agitation the question of establishing new States within New South Wales was referred to a Royal Commission of inquiry early in 1924, and in April, 1925, this Commission reported that the creation of new States in either the northern, Riverina, or Monaro districts was neither practicable nor desirable, but that it was desirable to extend the system of local government and to further decentralise administration.

Steady progress was made in the development of an Australian policy of railway construction. In the early part of 1923 an agreement was made permitting the Victorian Government to extend five lines of railway across the border in the south-west Riverina. In March, 1926, the first of these lines was opened for traffic to Balranald, and the second to Stony Crossing in March, 1928. At the close of 1923 the North Coast railway was opened for traffic as far as Murwillumbah, and in 1926 the construction of a new interstate line from Kyogle to Brisbane was commenced under agreement between the Governments of Queensland, New South Wales, and

the Commonwealth. A line across New South Wales to Broken Hill was opened in November, 1927. This route is destined to be linked directly with the transcontinental line to Western Australia.

Considerable activity was maintained in constructing other important public works. Operations in connection with the Hume reservoir on the Murray River proceeded steadily. In March, 1924, a tender was accepted for the erection of the North Shore bridge. The foundation-stone was laid in April, 1925, and the work of construction will probably be completed in 1932. The construction of the underground railway also continued, and the first section to St. James station was opened for traffic at the end of 1926. Additional lines were laid to carry an increased volume of traffic on the suburban system, which has been electrified. The whole railway system of the State was subjected to close inquiry by two English experts, who made a number of recommendations for improving the scheme of finance, control, etc. With the rapid increase in the use of motor vehicles attention was given to improvement of main roads, expenditure on construction was increased both from revenue and from loan funds, and, in 1925, a Main Roads Board was created. The Commonwealth Government also made road grants to the States.

Under the auspices of the British Cotton-growing Association much propaganda was conducted in favour of cotton-growing, and, although the area actually cropped was comparatively small, experiments were undertaken by farmers over a wide area.

Immigration proceeded steadily, but was confined principally to nominated immigrants, domestic workers, and boys for agricultural work under the auspices of various institutions. The land settlement policy was continued in operation. Facilities were provided through the Rural Bank for the voluntary subdivision of large estates and new proposals for compulsory subdivision were put forward.

Rapid extension commenced in 1925 in the use of wireless telegraphy, and in that year many installations came into existence in private homes for receiving news and musical programmes broadcasted from bureaux conducted by private companies under the general supervision of the Government. In 1926 projects were formulated for the transmission of messages by air between Australia and the United Kingdom, and the system was actually established in 1927. This important advance in communication occurred concurrently with steady progress in aviation, and several trial and survey flights were successfully carried out between Europe, Australia, and the East. In February, 1928, the journey from England to Darwin was completed in sixteen days by Hinkler, an Australian, travelling alone in a light aeroplane and later in the year Kingsford Smith and Ulm flew from the United States of America to Australia in three stages.

A special service squadron of the British Fleet visited the State in April, 1924, and during its visit the battle-cruiser *Australia*—the flagship of the first Australian navy—was sunk at sea as part of the scheme of disarmament agreed upon at the Washington Conference in 1923. Toward the end of July, 1925, an extended visit was received from a large squadron of American battleships manœuvring in the Pacific Ocean. They were warmly welcomed by the public, and the interchange of friendly courtesies still further promoted the cordial relationships subsisting between America and Australia. A large delegation of representatives of the Empire Press Union also visited the State in the latter half of 1925.

Upon the expiry of the State Parliament by effluxion of time a general election was held at the end of May, 1925, and a Labour Government was

returned to power. At this election women candidates contested six seats, and one was elected as the first woman representative in the Legislative Assembly.

Following the change of Government, the forty-four hours week was brought into operation again, provision was made for the payment of pensions to widows with dependent children, State high schools became free again; the Fair Rents Act was amended and extended to include certain shop premises, and legislation was passed to remove any doubt as to the eligibility of women for appointment to the Legislative Council. The industrial arbitration system was remodelled to provide for an Industrial Commission and wages boards, and the ambit of the workers' compensation laws was considerably extended. In 1927 the basis of fixing the living wage for males was altered by Parliament to provide for the requirements of a man and wife, without children, and a system of child endowment was introduced.

A matter having important bearing on the powers and duties of the Governor arose in 1926 out of the rejection by the Legislative Council of a number of bills introduced by the Government. In order to obtain adequate support in the Upper House the Ministers advised the Governor to appoint twenty-five new members, submitting that the appointment of members and the number of Councillors were matters of ministerial responsibility. The Governor referred the matter for advice to the Dominions Office in London, as he was of the opinion that, in the custom hitherto observed, the Upper Chamber, which then numbered seventy-four, should be numerically smaller than the Lower House. The Secretary of State for Dominion Affairs declined to intervene, and finally the Governor agreed to act upon the advice of the Ministry, and make twenty-five new appointments.

After the appointment of the new members, the Government introduced a bill to abolish the Upper House, but leave to proceed with this measure was refused by vote of the Legislative Council on 23rd February, 1926. Subsequently the Governor refused the advice of his Ministers to make further appointments, and the Attorney-General in person laid the matter before the Secretary of State for the Dominions, who again declined to instruct the Governor in the matter. Early in 1927 a crisis developed in the Parliamentary Labour party, and as a result of a division of opinion in the Ministry the Premier resigned and was recommissioned to form a Ministry on condition that a general election should be held. At the election on 8th October, 1927, a majority of Nationalist and Country party candidates was returned, and a Coalition Government was formed. This election was held on the basis of single seats with preferential voting.

In November, 1925, a Federal election was held under the provisions for compulsory voting, and the State of New South Wales returned a majority of Nationalist and Country Party representatives to both the Senate and the House of Representatives. At the elections of November, 1928, these parties were returned to power though with a reduced majority.

On 9th May, 1927, the Federal Parliament was opened at Canberra by H.R.H. the Duke of York.

The correlation of State and Federal activities which had been advanced by the amalgamation of State and Federal income-tax offices in 1923 was further continued. In 1927 an important agreement was made in relation to financial arrangements. An Australian Loan Council was constituted to control all borrowing by the Commonwealth and States; the Commonwealth assumed the liabilities of the States in respect of their debts, and a uniform sinking fund, to which the Commonwealth and the States contribute was established to provide for the extinction of the State's debts within a definite period. Towards the end of 1928 an Act was passed providing for the amalgamation of State and Federal electoral rolls.

On the other hand, a proposal for an extension of the industrial powers of the Commonwealth with a view to preventing the overlapping of Federal and State jurisdiction was rejected by the electors at a referendum in September, 1926.

An amending Electoral Act passed in 1928 provided for the introduction of compulsory voting at State elections in New South Wales, and for the compulsory expression of preference votes. The electoral system was remodelled by a distribution of electoral districts, which strengthens the representation of country areas as compared with the more populous districts surrounding Sydney and Newcastle, and authority was given for the appointment of an Electoral Commissioner responsible to Parliament. A referendum on the question of prohibition of the liquor trade with compensation was held on 1st September, 1928, and resolved in the negative by a substantial majority. The system of keeping the Public Accounts of the State was remodelled with a view to making them more informative, and to separating the accounts of the State business undertakings from those relating to purely administrative matters. The law relating to income-tax was revised, the statutory exemption being reduced and the field of taxation extended; the rate of tax was made progressively increasing and the statutory deduction progressively decreasing.

The long continued depression in the coal-mining industry led the Government to inquire into its causes, and, pending a complete investigation, to put forward a tentative scheme to rehabilitate the industry by effecting a substantial reduction in prices; but the employees would not accept the wage reduction involved and the position did not improve during the year.

1929.

The coal position became increasingly difficult by the failure of conferences between the parties and the closing of the principal northern mines in March. The Federal and State Governments appointed a Royal Commission to inquire into the industry, but it had not concluded its investigations at the end of the year, when the new Federal Government dissociated itself from the proceedings.

The dislocation in this industry and a further dislocation in the timber industry, following a strike of 4,000 employees against the reversion by award to a forty-eight hours week, adversely affected industry generally, and unemployment increased to such an extent as to constitute a severe strain on the resources of Government relief.

Unfortunately, the position was made more serious by a heavy fall in prices of wool and the prospect of only a moderate wheat crop. A diminution in borrowing had already been decided upon by the Australian Loan Council, but the position of the money market overseas necessitated a further curtailment. The decreased borrowing from abroad, together with the reduction in national income from wool and wheat combined to create a most difficult situation. Reduction of Government expenditure became absolutely essential, necessitating the dismissal or partial employment only of many employees. Private employers, suffering from a serious reduction in business, were also forced to take similar measures, with the result that at the end of the year it was estimated that there were 35,000 persons unemployed.

During the year the Government carried out an extensive programme of legislation in pursuance of its announced policy to reduce the burden on industry. The Family Endowment Tax was reduced from 3 per cent. to 1 per cent. and, after the basis of living wage declarations had been

altered to include one child in addition to a husband and wife, the endowment was restricted by the exclusion of the child provided for in the living wage. Additional pensions were granted to widows in certain circumstances, but the pensions of widows with incomes were reduced by £1 for each £ of income over £26, instead of £78 as formerly. The Industrial Commission, as reconstituted by three judges, after a protracted inquiry, found that the living wage proper for a man and wife was 72s. 6d. per week, but in view of the far-reaching effects of a reduction from 85s. per week, withheld the declaration for fourteen days. In the meantime, however, an Act was passed quickly to suspend its power to declare the living wage until Parliament made further provision and, subsequently, it was enacted that the living wage for a man was to include the extra cost of one child under 14 years, and for a woman to be such percentage of the man's rate as the Commission deemed proper—the living wage on those bases being declared in December at £4 2s. 6d. for men and £2 4s. 6d. for women. With a desire to assist primary producers and promote employment, rural workers were removed from the operation of the Industrial Arbitration Acts and a Government Guarantee Board was constituted to guarantee to banks the repayment of advances to settlers.

As the season advanced further measures were taken with the object of reducing costs of production and administration. Bills were introduced for the repeal of the Forty-four Hours Act, a reduction in salaries of public servants, and a special levy on incomes for the relief of unemployment. The importation of luxuries was discouraged and the Federal Government mobilised the gold supply in order to adjust the unfavourable trade balance which had resulted from the sudden decline in values of staple exports. The coal dispute was terminated in May, 1930, and as prices of wool began to rise, the general outlook showed signs of improvement.

Efforts to promote the welfare of the community were apparent in the passage of an Act to regulate the supply and sale of milk in and around the city of Sydney, and of a further measure to provide for the incorporation of public hospitals and the constitution of a Hospitals Commission, with authority to reorganise public hospital services.

A definite advance towards a reconstruction of the Upper House of the State Parliament was made during 1929, when it was prescribed that any bill for this purpose must be submitted to a referendum. Subsequently a bill was passed to replace the nominee chamber, and life membership by an elective body and a definite term of service. The referendum is to be held on a day to be proclaimed.

Sir Philip W. Game was appointed Governor of New South Wales upon the expiration of Sir Dudley de Chair's term of office in February, 1930.

In the Parliament of the Commonwealth, a political crisis ensued, when the Government announced its intention to abolish the Federal system of industrial arbitration. Parliament was dissolved and at the subsequent general elections in September, 1929, the Government was defeated.

COMMERCE.

POWER to make laws with respect to trade and commerce with other countries and between the States of Australia is vested in the Commonwealth Parliament, and in the year 1901 control of the Customs and Excise Department of New South Wales was transferred to the Commonwealth.

The first Federal Act relating to customs came into operation by proclamation on 4th October, 1901. The Act, with amendments, provides administrative machinery in relation to customs, prescribes the manner in which duties are to be computed and paid, and authorises the inspection of imports and exports.

Prior to federation a different tariff was in operation in each State, and interstate trade was subject to the same duties as oversea trade. On 8th October, 1901, when the Customs Tariff Act of 1902 was introduced in the Federal Parliament, a uniform tariff for all the States was imposed, trade and commerce between the States became free, and the power of the Commonwealth to impose duties of customs and excise became exclusive, except that the State of Western Australia was given the right to levy duty on interstate imports for a period of five years.

By the Customs Act certain imports are prohibited, and the prohibition may be extended by proclamation to other commodities. The conditions under which goods for export are prepared may be prescribed by regulation, and the exportation of goods which do not conform to the required standards may be prohibited.

In terms of the Commerce (Trade Descriptions) Act, 1905, it is required that the imports or exports of the following classes of goods must bear a prescribed trade description, viz., articles used for food or drink by man, or used in the manufacture or preparation thereof; medicines; manures; apparel (including boots and shoes) and the material from which it is manufactured; jewellery; seeds and plants; brushware.

In the administration of matters relating to trade and customs, the Department of Trade and Customs, under the direction of a Minister of the Crown, is assisted by the Tariff Board appointed under an Act which commenced in March, 1922. The Board consists of four members, including an administrative officer of the Department of Trade and Customs, who is chairman. The Act prescribes that the Minister must refer to the Board for investigation such matters as the classification of goods for duty; the determination of the value of goods for duty; appeals against the decisions of the Comptroller-General in respect of the interpretation of the tariff; the necessity for new or increased or reduced duties, or for bounties; the effect of bounties; proposals for applying preferential tariffs to any country; and complaints that a manufacturer is taking undue advantage of the protection afforded by the tariff to charge unnecessarily high prices. In addition, the Minister may request the Board to report as to the effect of the customs and excise tariffs and of the customs laws on the industries of the Commonwealth, and other matters affecting the encouragement of industries in relation to the tariff.

Certain inquiries conducted by the Tariff Board must be held in public, *e.g.*, those relating to revision of the tariff, to proposals for bounties, or to complaints that a manufacturer is taking undue advantage of the protection afforded by the tariff.

The Federal Department of Markets was established in 1925 to take over functions of the Department of Trade and Customs relating to the oversea marketing of Australian produce and to immigration, also the administration

of the Commonwealth Board of Trade. The functions of the Board of Trade include the collection and dissemination of commercial and industrial intelligence, the control of Trade Commissioners abroad, and the investigation of matters affecting trade, commerce, and industry. The Board, under the presidency of the Prime Minister, includes in its membership representatives of the Customs Department, the Chamber of Commerce, the Chamber of Manufactures, and of other kindred organisations. A section of the board has been established in each State of the Commonwealth.

The oversea export of a number of Australian products is controlled by boards constituted under Federal legislation to organise the marketing of these commodities. As a preliminary step towards initiating this form of control special legislation is passed in respect of each commodity, but it does not become effective until the project has been submitted to a poll of the producers. If a majority of the producers are favourable, a board elected by them is appointed to supervise the export from Australia and the subsequent sale and distribution of the product, and the expenses are defrayed by means of a levy on the exports. Thus boards have been organised in respect of dairy produce (butter and cheese), dried fruits (sultanas, currants, and lexias), canned fruits (apricots, peaches, and pears, and any other varieties as may be prescribed), and wine. Legislation was enacted also in respect of fresh fruits (apples and pears), but the poll of growers proved unfavourable and the Act was not brought into operation.

In terms of the Export Guarantee Act, 1924, the Federal Government may guarantee bank advances made to boards constituted to control the export of Australian products, the maximum guarantee being 80 per cent. of the market value of the produce. The Act also authorises the Government to grant assistance, upon the recommendation of the Commonwealth Board of Trade, in respect of the export of Australian primary products, the total liability which may be incurred in this manner being limited to £500,000.

For some products, assistance has been given by the Government of the Commonwealth in the form of bounties payable on export, but all such bounties, except for fortified wine, have expired by effluxion of time. Details are shown in the chapter entitled "Factories."

STATISTICS OF IMPORTS AND EXPORTS.

Statistics relating to the oversea trade of the various States of Australia are recorded by the Federal Department of Trade and Customs. Particulars of interstate trade have not been available since 12th September, 1910, when the Federal Government decided that the records should be discontinued. Therefore the figures in this chapter do not represent the total external trade of New South Wales, as they are exclusive of the large volume of interstate trade. Moreover, the exports do not include the products of New South Wales shipped abroad at ports in other States, *e.g.*, Victoria and South Australia, though they include the products of other States despatched oversea from ports in New South Wales. A considerable proportion of the oversea imports received into New South Wales is distributed for consumption elsewhere.

OVERSEA TRADE.

The value of the goods imported and exported as shown in the following tables represents the value as recorded by the Department of Trade and Customs. The value of goods imported represents the amount on which duty is payable or would be payable if the duty were *ad valorem*, such value being the sum of the following:—(a) The actual price paid by the

Australian importer plus any discount or other special deduction, or the current domestic value in the country of export at the date of exportation, whichever is the higher; (b) all charges for placing the goods free on board at the port of export; and (c) 10 per cent. of the amounts (a) and (b).

The value of goods exported is assessed, as a general rule, upon the basis of the value in the principal markets of New South Wales, exception being made in respect of goods subject to special marketing arrangements, which have the effect of raising prices in the local markets above world parity, *e.g.*, butter, sugar, dried fruits.

The total value of overseas imports and exports, as recorded by the Customs Department, during various years since 1901 is shown in the following table, with the value per head of population. The figures, with the exception of those relating to the year 1901, do not include the value of exports in the form of ships' stores.

Year ended 30th June.	Oversea Imports.	Oversea Exports.			Total Trade Oversea.
		Australian Products.	Other Products.	Total.	
	£	£	£	£	£
1901*	17,560,207	†	†	18,210,627	35,770,834
1911*	27,343,428	29,938,415	2,222,986	32,161,401	59,504,829
1921	72,466,388	48,302,717	4,299,089	52,601,806	125,068,194
1926	64,009,919	51,565,742	2,436,072	54,001,814	118,011,733
1927	68,940,081	60,407,280	2,407,797	62,815,077	131,755,158
1928	65,072,266	49,493,820	2,389,109	51,882,929	116,955,195
1929	63,491,123	47,170,407	2,118,483	49,288,890	112,780,013

Per head of Population.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1901*	12 16 11	†	†	13 6 6	26 3 5
1911*	16 8 5	17 19 7	1 6 8	19 6 3	35 14 8
1921	34 13 4	23 2 2	2 1 1	25 3 3	59 16 7
1926	27 17 1	22 8 9	1 1 3	23 10 0	51 7 1
1927	29 7 3	25 14 7	1 0 6	26 15 1	56 2 4
1928	27 2 0	20 12 3	0 19 11	21 12 2	48 14 2
1929	25 18 9	19 5 5	0 17 4	20 2 9	46 1 6

* Year ended 31st December.

† Not available.

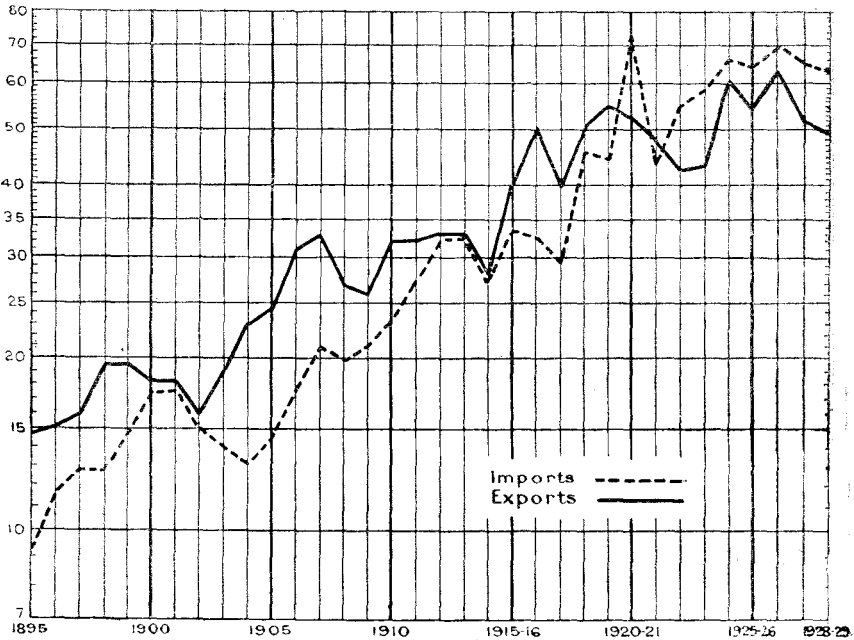
The increase in the aggregate value of trade during the decennium 1901 to 1911 was the result of industrial expansion, and the increase in trade between 1911 and 1921 was due in a large measure to enhanced prices.

During 1920-21 the value of imports was abnormally high, owing to extraordinary conditions affecting Australian trade. Anticipating protracted delivery and a curtailment of the quantity ordered Australian importers placed large orders abroad during the post-war period of trade expansion. Owing to trade depression in other countries, however, the Australian orders were delivered promptly and in full quantity, with the result that the value of imports expanded beyond immediate requirements.

In 1925-26 the volume of imports was very large, and in 1926-27 the value was the highest recorded in any year except 1920-21. In the following year, 1927-28, there was a decline of £3,870,000, almost half the reduction being in the items bodies and chassis for motor-cars. In 1928-29 there was a further decline of £1,570,000, the principal items showing a reduction in value being piece goods, rubber tyres, undressed timber, and gold.

OVERSEA TRADE, 1895 TO 1928-29.

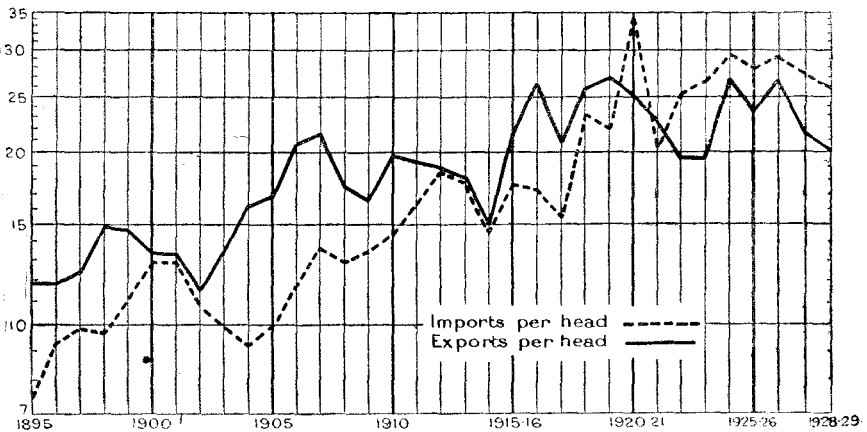
Ratio Graph.



The numbers at the side of the graph represent £1,000,000.

OVERSEA TRADE PER HEAD OF POPULATION, 1895 TO 1928-29.

Ratio Graph.



The numbers at the side of the graph represent £ per head.

The diagrams are ratio graphs. The vertical scale of each graph is logarithmic, and the curves rise and fall according to the percentage of increase or decrease. Actual values are shown by means of the numbers at the side of the graphs.

The bulk of the exports are products of the rural industries, and the quantities available for export vary with seasonal conditions. Between 1901 and 1911 the value of exports, increasing with production, rose by 77 per cent. During the following decade the industries suffered severely by reason of drought and war, which caused a diminution in production, but the value of exports continued to rise under the influence of higher prices.

In 1926-27 the total value of exports was the highest yet recorded, but it included over £10,000,000 of gold, which was transferred to the United States, whence a large amount had been imported in 1924-25.

In 1927-28 exports of gold dropped to £2,000,000, and there was a decline of £2,300,000 in respect of wheat and flour and of £1,000,000 in minerals. Exports of meat, tallow, skins and hides also were lower, but this was compensated by an increase in the value of wool despatched overseas.

In 1928-29 the exports of wheat and flour showed an increase of £4,000,000, but there were decreases in wool £3,000,000 and gold £1,800,000. With smaller decreases in the values of lead, coal, tin, butter, and skins, the total value was reduced by £2,600,000 as compared with the preceding year.

A comparison of the annual values of oversea imports with those of exports shows that there was an excess of imports in each of the last four years, ranging from £6,100,000 in 1926-27 to £14,200,000 in 1928-29. A comparison which is limited to records of oversea trade is, however, of little value, because some of the imports received in New South Wales are destined for other States, and commodities produced in New South Wales are exported to other States for consumption or for shipment oversea. The oversea trade of the Commonwealth in 1928-29, viz., imports £143,648,000, and exports £144,850,000 showed an excess of exports amounting to £1,203,000.

Movement of Gold.

Gold is an item of domestic produce in Australia and imports and exports of bullion and specie are included in the figures relating to the oversea trade, though consignments received in or despatched from New South Wales are to be regarded as affecting the trade of the whole Commonwealth rather than that of New South Wales. Restrictions were imposed by the Federal Government upon the movement of gold during the war period, and the embargo upon its export was not removed until April, 1925. The export of gold again became subject to approval by the Commonwealth authorities in January, 1930.

Year ended 30th June.	Overseas Imports of Bullion and Specie.	Overseas Exports of Bullion and Specie.		
		Australian Produce.	Other Produce.	Total.
	£	£	£	£
1901*	492,848	†	†	3,816,844
1911*	1,254,508	3,281,701	1,096,936	4,378,637
1921	29,392	3,770,195	15,275	3,785,470
1926	379,760	3,251,469	14,910	3,266,379
1927	503,134	10,304,680	6,000	10,310,680
1928	800,300	2,071,413	9,200	2,080,613
1929	210,523	176,809	29,068	205,877

* Calendar year.

† Not available.

The bullion and specie imported during 1928-29 included 87,834 oz. of gold, valued at £189,566 from New Guinea. Of the exports during that year £96,994 were sent to India.

DIRECTION OF TRADE.

The direction of the overseas trade of New South Wales is indicated in the following statement, which shows the value of imports to and of exports from the principal countries during the year 1928-29 in comparison with similar information for the years 1911 and 1920-21. Particulars regarding the imports relate to the country of origin:—

Country.	Oversea Imports (Country of Origin).			Oversea Exports.		
	1911.	1920-21.	1928-29.	1911.	1920-21.	1928-29.
	£	£	£	£	£	£
United Kingdom	12,675,664	32,960,437	23,619,283	12,261,971	20,630,150	13,011,047
Canada	331,585	1,857,411	1,921,359	113,582	125,242	277,437
South African Customs Union	173,671	286,005	431,060	323,792	463,902	172,372
India and the East	1,208,090	3,337,251	3,827,001	3,167,958	1,699,290	1,425,288
New Zealand	1,722,021	965,682	927,639	1,686,996	4,797,519	2,467,992
South Sea Islands	463,848	1,511,143	1,112,476	529,421	2,083,277	1,418,649
Other British Possessions...	50,029	322,214	229,410	8,430	2,066,382	275,273
Total, British	16,622,908	41,240,143	32,068,231	18,092,150	31,865,762	19,048,058
Belgium	372,049	812,096	306,378	2,431,797	2,732,907	3,708,508
France	916,918	1,440,873	1,659,890	3,640,477	2,655,324	6,043,150
Germany	2,429,272	9,548	1,851,637	4,201,080	628,161	4,498,985
Italy	226,029	337,432	604,497	254,745	795,299	1,750,678
Netherlands	143,906	229,575	678,582	71,799	409,503	199,889
Norway	186,590	445,052	292,678	237	30,817	590
Sweden	262,642	1,126,569	627,406	619	98,687	159,463
Switzerland	401,800	874,319	935,744	232	8,808	3,725
Other European	278,759	271,134	803,364	248,780	585,920	767,145
United States and Hawaii	4,020,412	17,403,732	16,902,326	825,309	7,518,329	3,248,820
Japan	423,770	2,612,101	2,391,399	667,420	2,147,444	6,390,395
Netherlands East Indies ...	370,408	2,803,999	3,456,359	218,431	1,095,575	487,604
China and other Eastern Countries	230,483	577,275	414,800	381,012	403,648	505,104
South Sea Islands	283,980	149,802	118,492	587,141	573,972	398,424
Other Foreign Countries ...	163,502	2,132,738	379,340	540,082	1,051,710	1,478,352
Total Foreign	10,720,520	31,226,245	31,422,892	14,069,251	20,736,044	30,240,832
Total, All Countries	27,343,428	72,466,388	63,491,123	32,161,401	52,601,806	49,288,890

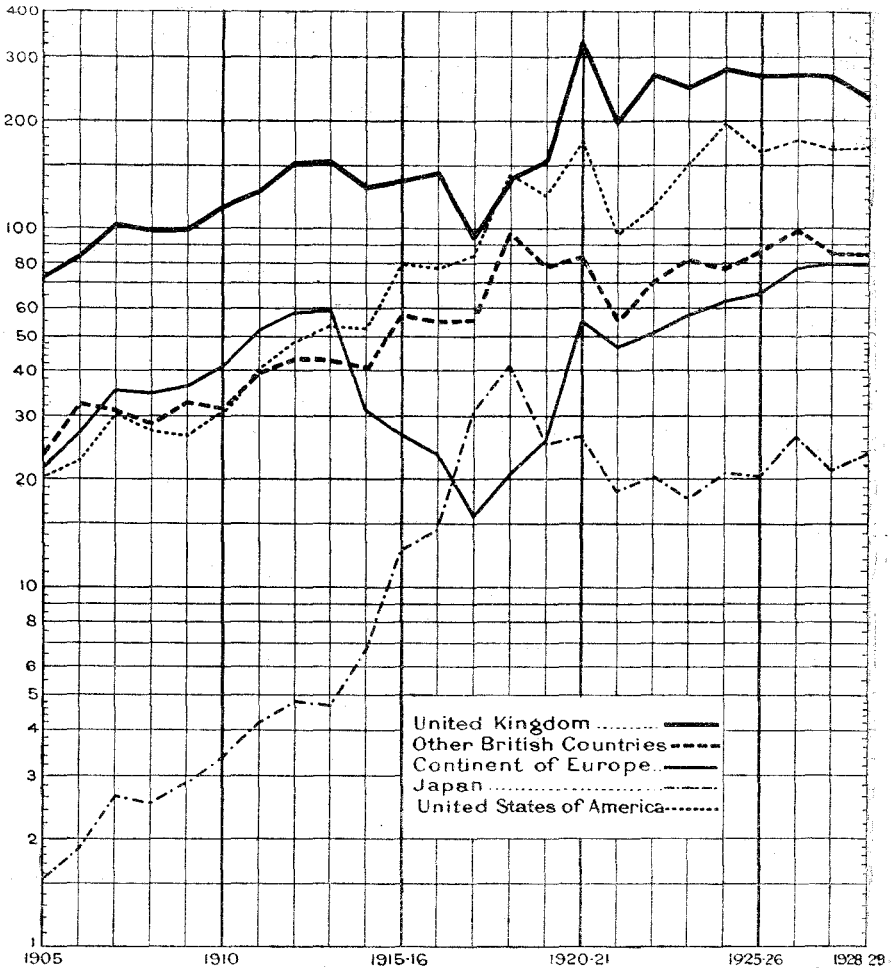
In the overseas trade of New South Wales the value of the goods to and from the United Kingdom exceeds the trade with any other country. In 1928-29 imports valued at £23,619,283 or 37.2 per cent. of the total imports were the products of Great Britain and Northern Ireland, and exports shipped thereto were valued at £13,011,047, representing 26.4 per cent. of the total exports. The corresponding proportions in 1911 were imports 46.4 per cent. and exports 38.1 per cent. The figures shown in respect of trade with the United Kingdom in 1928-29 are exclusive of imports from and exports to the Irish Free State, valued at £98 and £92,041 respectively.

From European countries other than Great Britain and Ireland the imports were valued at £7,760,176, or 12 per cent. of the total in 1928-29, and the direct exports thereto were valued at £17,732,133, or 36 per cent.

The value of imports from the Continent was about £2,500,000 greater, and the exports nearly £6,900,000 greater than in 1911, when the relative proportions were 19.1 per cent. of imports and 33.7 per cent. of exports. A noticeable feature of the trade with Europe in recent years has been the increase in the direct exports to France, which were of greater value in 1928-29 than the exports to any other foreign country.

Trade with North America developed rapidly during the war period. Imports from Canada and the United States (including Alaska and Hawaii) represented only 15.9 per cent. in 1911 and exports 2.9 per cent. In 1928-29 the imports were valued at £18,823,685, or 29.6 per cent., and exports at £3,526,000 or 7.2 per cent.

OVERSEA IMPORTS—COUNTRY OF ORIGIN—1905 TO 1928-29
Ratio Graph.



The numbers at the side of the graph represent £100,000. The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the percentage of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

Imports from Japan increased in value from £423,770, or 1.5 per cent., in 1911, to £2,391,399, or 3.8 per cent., in 1928-29, and exports from £667,420, or 2.1 per cent., to £6,390,395, or 13 per cent. Imports from the Netherlands East Indies showed a remarkable expansion from £370,408, or 1.4 per cent., in 1911, to £3,456,359, or 5.4 per cent., in 1928-29. This increase was due mainly to large imports of petroleum oils and of tea, the values in 1928-29 being £1,862,800 and £1,085,000 respectively.

Trade between New Zealand and New South Wales fluctuates according to seasonal conditions, as trade in primary products usually increases if local supplies become deficient as a result of an unfavourable season in either country. The imports and exports in 1928-29 showed proportions of 8.9 per cent. and 5 per cent. respectively. Imports from the South Sea Islands represent about 2 per cent. of the total imports, and exports nearly 3 per cent. of the total exports.

The interchange between New South Wales and the principal British countries, except New Zealand and Fiji, shows a pronounced excess of imports, and trade with most of the foreign countries with which the interchange is large, *e.g.*, France, Germany, Belgium, Italy and Japan, results in a large excess of exports. In contrast there was an excess of imports from the United States amounting to £13,700,000 in 1928-29, and from Netherlands East Indies £3,000,000.

The following statement shows the value of British and foreign oversea imports in each of the last three years, as compared with the annual average values in the three quinquennial periods between 1911 and 1926:—

Period.	Value of Oversea Imports, according to Country of Origin—Annual Average.								Total Imports.
	United Kingdom	Other British Countries	Total British Empire	Continent of Europe.	United States of America	Japan.	Other Foreign Countries	Total Foreign Countries	
1911 to 1915-16* ...	£000 14,006	£000 4,459	£000 18,465	£000 4,541	£000 5,479	£000 662	£000 1,393	£000 12,075	£000 30,540
1916-17 to 1920-21	17,227	7,370	24,597	2,825	11,979	2,747	2,938	20,489	45,086
1921-22 to 1925-26	25,068	7,396	32,464	5,674	14,405	1,951	2,884	24,914	57,378
1926-27 ...	26,830	9,921	36,751	7,721	17,891	2,644	3,933	32,189	68,940
1927-28 ...	26,321	8,574	34,895	7,822	16,746	2,150	3,459	30,177	65,072
1928-29 ...	23,619	8,449	32,068	7,760	16,884	2,391	4,388	31,423	63,491

Per cent. of Total Oversea Imports.

1911 to 1915-16* ...	45.9	14.6	60.5	14.9	17.9	2.2	4.5	39.5	100
1916-17 to 1920-21	38.2	16.4	54.6	6.2	26.6	6.1	6.5	45.4	100
1921-22 to 1925-26	43.7	12.9	56.6	9.9	25.1	3.4	5.0	43.4	100
1926-27 ...	38.9	14.4	53.3	11.2	26.0	3.8	5.7	46.7	100
1927-28 ...	40.4	13.2	53.6	12.0	25.8	3.3	5.3	46.4	100
1928-29 ...	37.2	13.3	50.5	12.2	26.6	3.8	6.9	49.5	100

* Calendar years 1911 to 1913, and years ended June, 1915 and 1916.

The imports of British origin represent about 50 per cent. of the total, the proportion having declined gradually during recent years. About 75 per cent. of the British goods are imported from Great Britain and Ireland. Importations from the United States increased very rapidly during the war period until they reached a proportion exceeding 25 per cent. of the

total. Japanese goods with a ratio between 3 per cent. and 4 per cent. have been exceeded in value in recent years by imports from the Netherlands East Indies whence the bulk of the goods classed as "other foreign" are imported.

The following comparison relates to the annual value of oversea exports from New South Wales to British and foreign countries since 1911:—

Period.	Value of Oversea Exports to British and Foreign Countries—Annual Average.								Total Export.
	United Kingdom	Other British Countries	Total British Empire	Continent of Europe	United States of America	Japan.	Other Foreign Countries	Total Foreign Countries	
	£000	£000	£000	£000	£000	£000	£000	£000	£000
1911 to 1915-16* ...	13,212	5,069	18,281	8,117	4,002	1,335	1,673	15,127	33,408
1916-17 to 1920-21	22,279	11,778	34,057	3,349	6,688	2,895	2,722	15,654	49,711
1921-22 to 1925-26	16,614	6,217	22,831	14,656	5,109	5,066	2,002	26,833	49,664
1926-27 ...	15,417	5,770	21,187	18,597	14,847†	5,466	2,718	41,628	62,815
1927-28 ...	13,673	5,227	18,900	18,988	5,613	6,551	1,831	32,983	51,883
1928-29 ...	13,011	6,037	19,048	17,732	3,166	6,391	2,952	30,241	49,289

PER CENT. OF TOTAL OVERSEA EXPORTS.

1911 to 1915-16* ...	39.5	15.2	54.7	24.3	12.0	4.0	5.0	45.3	100
1916-17 to 1920-21	44.8	23.7	68.5	6.7	13.5	5.8	5.5	31.5	100
1921-22 to 1925-26	33.5	12.5	46.0	29.5	10.3	10.2	4.0	54.0	100
1926-27 ...	24.5	9.2	33.7	29.6	23.7	8.7	4.3	66.3	100
1927-28 ...	26.3	10.1	36.4	36.6	10.8	12.6	3.6	64.6	100
1928-29 ...	26.4	12.2	38.6	36.0	6.4	13.0	6.0	61.4	100

* Calendar years 1911 to 1913 and years ended June, 1915 and 1916.

† Includes gold, £10,000,000.

The comparison shows that 40 per cent. of the exports from New South Wales are sent to British countries, although the ratio has declined since the termination of the war. A somewhat smaller proportion is exported to the Continent of Europe, the increase in recent years being due in a measure to the establishment of direct communication between Australia and foreign countries, to which exports were transhipped formerly in Great Britain. Exports to the United States were augmented in some years by large consignments of gold, *e.g.*, in 1926-27, when they included gold to the value of £10,000,000, but on the whole the United States, which provides more than one-fourth of the imports, takes a very small proportion of exports from New South Wales, and the proportion, now only 6.4 per cent., is declining steadily. On the other hand, there has been an appreciable increase in exports to Japan. The exports to other foreign countries in 1928-29 included commodities to the value of £1,064,000 sent to Egypt.

ARTICLES OF IMPORT.

A classification of the oversea goods imported into New South Wales during the three years ended June, 1929, is shown in the following table. The items are grouped in accordance with a statistical classification of imports adopted by the Department of Trade and Customs:—

Classification of Oversea Imports.	1926-27.	1927-28.	1928-29.
	£	£	£
Foodstuffs of Animal Origin	1,355,748	1,455,232	1,126,533
Foodstuffs of Vegetable Origin, Beverages (non-alcoholic), etc.	4,064,283	3,477,579	3,445,517
Spirituous and Alcoholic Liquors	910,960	910,473	1,040,186
Tobacco and Preparations thereof	1,784,629	1,976,669	1,905,452
Live Animals	103,651	75,570	118,334
Animal Substances not Foodstuffs	572,344	641,491	665,708
Vegetable Substances and Unmanufactured Fibres	2,191,153	1,973,998	1,776,112
Apparel	2,760,237	2,684,373	2,512,082
Textiles	11,362,383	10,978,547	10,031,607
Yarns and Manufactured Fibres... ..	1,969,131	1,733,542	2,280,143
Oils, Fats, and Waxes	3,699,750	3,793,175	4,393,111
Paints and Varnishes	352,384	361,181	397,543
Stones and Minerals (including Ores and Concentrates)	386,506	423,207	402,354
Machines and Machinery... ..	7,654,484	7,480,989	7,206,591
Metal's and Metal Manufactures other than Machinery	12,482,471	10,226,267	10,996,937
Rubber and Rubber Manufactures	2,249,865	1,696,071	1,219,534
Leather and Leather Manufactures	200,133	186,236	168,033
Wood and Wicker	2,614,213	3,010,140	2,555,612
Earthenware, China, Glass, etc.... ..	1,159,309	1,095,894	1,159,811
Paper	2,312,399	2,287,445	2,346,801
Stationery and Paper Manufactures	1,271,474	1,369,613	1,282,106
Jewellery, Timepieces, and Fancy Goods	1,429,946	1,385,474	1,342,620
Optical, Surgical, and Scientific Instruments	1,190,444	910,216	891,186
Drugs, Chemicals, and Fertilisers	1,686,973	1,755,159	1,828,559
Miscellaneous	2,673,102	2,383,824	2,188,098
Gold and Silver; and Bronze Specie	502,109	799,901	210,523
Total Imports	68,940,081	65,072,266	63,491,123

The bulk of the imports consists of manufactured articles. Minerals, metal manufactures, and machinery, the most important group in respect of value in 1928-29, represented 29.3 per cent. of the total value of imports; next in order was the textile group, *i.e.*, apparel, textiles, yarns, and manufactured fibres, 23.3 per cent. Articles of food and drink and tobacco constituted an important class of imports, the value in 1928-29 being 11.8 per cent. of the total. The group, oils and fats and waxes, represented 6.9 per cent., and paper and stationery 5.7 per cent.

In the group comprised by machinery and metal manufactures, electrical machinery and appliances represented more than one-sixth of the value in 1928-29. The importation of electrical cable and wire—one of the principal items—has declined during the last two years and a large quantity has been manufactured locally. The value of bodies and chassis for motor cars imported during 1928-29 exceeded £4,000,000. For the most part the bodies of the cars used in New South Wales are made in Australia and the number imported was only 6,719 as compared with 36,200 chassis. The number of assembled chassis has been reduced from 9,627 in 1926-27 to 2,641 in 1928-29 and the number imported in parts has risen from 31,814 to 33,559.

In the textiles group the largest item, piece goods £7,874,705 declined by £680,000 in 1928-29. There was an appreciable increase in the imports of yarns which included artificial silk £459,899 and cotton £327,104—mainly from the United Kingdom admitted free of duty under the preferential

tariff. The value of tea and of tobacco each represents on the average about £2,000,000 per annum and whisky and tinned fish are next in order of value in these groups.

With the expansion in motor transport and in the use of oil as fuel imports of petroleum oils have grown very rapidly and an increase in the imports of crude rubber which commenced in 1925-26 has been followed by a marked decrease in pneumatic tyres—these movements being due to expansion in local manufacture.

A comparative statement of the principal items in the groups machinery, etc., apparel and textiles, and food, drink, etc., and of other items of considerable value is shown below. Where quantities are recorded they are stated as well as values.

Articles of Oversea Imports.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29. £
Electrical cable and wire ... cwt. £	134,495	83,200	130,238	244,900	206,713	199,501
(covered) ... £	703,302	637,054	831,721	1,154,371	1,075,664	795,430
Other electrical machinery and appliances ... £	1,620,874	2,518,407	2,329,486	2,530,886	2,580,082	2,646,587
Other machinery ... £	3,198,943	3,107,651	3,401,590	3,963,006	3,825,243	3,764,568
Iron and steel—Plate and sheet ... cwt. £	1,233,518	1,254,282	1,226,767	1,323,911	1,639,330	1,478,960
... Other ... £	1,407,929	1,422,753	1,238,187	1,309,186	1,431,838	1,250,034
Iron pipes and tubes ... cwt. £	782,790	642,700	620,179	664,653	757,922	567,188
... £	331,328	382,953	461,564	470,975	554,010	556,256
Motor-car—Bodies ... No. £	491,189	558,254	610,973	597,568	602,245	671,207
Chassis — Unassembled ... No. £	5,413	5,102	5,123	6,608	4,936	6,719
Assembled ... No. £	486,387	407,825	545,026	690,541	584,401	690,461
Other vehicles and parts ... No. £	22,761	26,272	31,593	31,814	20,503	33,559
Other metals and manufactures ... No. £	3,850,149	3,654,230	3,769,530	3,034,337	2,029,223	2,973,537
... £	1,275,932	1,282,468	1,132,837	1,383,582	637,039	417,529
Socks and stockings ... £	1,275,932	1,282,468	1,132,837	1,304,421	1,027,853	1,292,574
Piece goods ... £	3,203,809	3,218,444	3,108,842	3,498,183	3,155,746	3,134,377
Floor coverings ... £	598,273	664,668	663,693	658,987	610,658	793,114
Bags and sacks ... £	8,591,601	9,057,666	8,719,038	9,093,221	8,553,285	7,874,703
Yarns ... £	1,109,676	1,184,155	1,093,643	1,108,680	655,290	1,066,508
Tobacco, cigars, etc. ... lb. £	898,960	1,365,311	1,339,478	1,212,172	946,163	1,239,308
Tea ... lb. £	585,372	698,730	586,653	658,403	685,290	952,427
Whisky ... gal. £	17,665,109	13,192,443	17,271,058	16,345,070	17,891,076	17,803,558
Fish, in tins ... lb. £	2,115,740	1,605,897	2,003,603	1,784,629	1,976,669	1,905,482
Copra ... cwt. £	23,334,439	25,814,906	25,244,768	28,922,652	25,813,496	28,732,712
Oils—Petroleum spirit, etc. ... gal. £	1,674,915	2,140,583	2,086,953	2,297,585	2,046,024	2,114,514
„ crude ... gal. £	668,293	727,048	822,355	515,981	640,220	650,138
Lubricating (mineral) ... gal. £	892,033	849,237	970,843	616,245	622,499	744,355
Rubber—Crude and waste ... cwt. £	10,055,995	8,754,380	9,392,437	11,192,635	9,962,856	12,257,172
Tyres, pneumatic ... lb. £	480,996	422,957	472,853	551,775	514,398	563,319
Timber, undressed ... 000 sup. ft. £	625,693	588,921	646,467	784,896	611,167	576,414
Printing paper ... tons £	693,635	705,196	826,134	918,164	701,013	651,688
Books (printed) ... £	25,108,705	31,407,627	41,564,759	53,428,418	63,916,047	72,200,630
Glass and glassware ... £	1,475,113	1,784,737	2,101,700	2,243,245	2,389,299	2,697,151
Jewellery and precious stones ... £	9,409,969	12,394,401	13,585,820	14,725,078	17,262,208	26,980,605
Musical instruments ... £	134,462	143,453	159,245	166,290	221,161	378,348
Gramophones, records, etc. ... £	3,594,826	3,839,837	4,731,787	5,338,909	5,170,909	6,576,245
Bullion and specie ... £	332,771	347,532	376,742	482,713	388,631	526,596

The United Kingdom is the main source of supply of most of the manufactured articles imported into New South Wales, the largest items being piece goods, valued at over £4,000,000 in 1928-29; machinery and metal manufactures—notably vehicles and parts, iron and steel, and electrical cable and wire—floor coverings, printing paper, and whisky. The principal products of other European countries imported into New South Wales are as follow:—France, silk piece goods, trimmings and ornaments, apparel,

paper manufactures, and toilet preparations; Switzerland, silk piece goods, trimmings and ornaments, timepieces; Belgium, glass; Netherlands, electrical appliances and artificial silk; Norway, fish, paper, dressed timber; Sweden, paper, dressed timber, matches, and wood pulp; Italy, silk piece goods and felt hats; Germany, machinery, tools of trade, cutlery and other metal manufactures, timepieces, musical instruments, gloves, trimmings and ornaments, lace, silk piece goods, and toys; from Czecho-Slovakia, glassware. The items of Eastern origin include the following:—From Japan, piece goods of silk and cotton, timber, raw silk; from India, bags and sacks, hessian and other jute goods, goatskins, tea, linseed; from Ceylon, tea, and crude rubber; from British Malaya, rubber and spices; from China, tea, nuts, and vegetable paint oils; from Netherlands East Indies, kapok, petroleum oils, tea, and rubber; from the Philippine Islands, timber.

The products of the United States are imported in large quantities, *e.g.*, machines and machinery of various kinds, tools, motor vehicles and parts, other metal manufactures, oils, tobacco, films for kinematographs, timber, covers for rubber tyres, musical instruments, tinned fish, piece goods, cotton yarns, and socks and stockings. The principal imports of Canadian origin are paper, tinned fish, cutlery, motor chassis, machinery, and timber. Undressed timber is usually the principal item of import from New Zealand. Copra is imported from various South Sea Islands, rock phosphates from Nauru and Ocean Island, diamonds and asbestos from South Africa, oils from Persia, dates from Mesopotamia, asphalt, bitumen, etc., from Mexico, cocoa beans from British West Africa, and gold from New Guinea.

ARTICLES OF EXPORT.

The exports of Australian produce consist mainly of raw materials. In regard to such commodities as wool, wheat, etc., for which there is constant demand, the quantity available for export depends mainly on local seasonal conditions, but the exportation of industrial metals is influenced to a greater extent by market prices, and a movement up or down reacts promptly on the productive activity. The value of the principal commodities exported from New South Wales during 1928-29 are shown below in comparison with the annual average value during the five years ended 30th June, 1928.

Items.	Value of Australian Produce exported Oversea from New South Wales.		Percentage of Total.	
	Annual Average, 1923-24 to 1927-28.	1928-29.	Annual Average, 1923-24 to 1927-28.	1928-29.
	£	£		
Wool	27,143,160	27,377,798	52.2	58.0
Hides and skins	4,088,534	4,330,777	7.9	9.2
Meat—				
Frozen Mutton and Lamb	629,325	562,164	1.2	1.2
Other	906,060	536,006	1.7	1.1
Leather	391,824	321,119	.7	.7
Tallow	554,671	541,039	1.1	1.1
Butter	1,643,244	1,160,443	3.2	2.5
Wheat	4,077,263	4,609,101	7.8	9.8
Flour	1,829,522	1,992,130	3.5	4.2
Copper Ingots	186,937	225,029	.4	.5
Lead Pig	2,362,049	1,132,592	4.5	2.4
Tin Ingots	403,562	232,468	.8	.5
Coal	1,011,149	389,407	1.9	.8
Timber undressed	404,603	241,504	.8	.5
Bullion and Specie	3,257,436	176,809	6.3	.4
Other	3,147,872	3,342,021	6.0	7.1
Total	52,037,211	47,170,407	100	100

The commodities wool, skins and hides, wheat and flour represented in value more than 81 per cent. of the oversea exports of domestic produce in 1928-29, the largest item being wool £27,377,798 or 58 per cent. The value of wool, wheat, flour and hides and skins was absolutely and relatively above the average of the previous quinquennium though the total value of domestic exports was lower

Details of the quantity and value of the principal items of the oversea export trade from New South Wales during each of the last six years are shown below:—

Commodities.	Oversea Exports of Australian Produce from New South Wales.					
	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Wool—Greasy	lb. 198,950,836	209,334,275	312,974,599	335,025,736	314,747,186	340,541,026
Scoured	lb. 19,801,044	23,566,725	23,235,560	25,593,105	26,892,422	25,221,441
Tops	lb. 2,541,524	2,395,503	2,193,911	2,739,770	24,592,623	18,741,799
	£ 3,956,667	3,492,004	4,065,318	2,900,897	3,088,900	2,055,854
	£ 928,082	991,452	846,120	562,715	339,175	100,503
Total wool	£ 23,270,650	26,953,680	26,275,591	28,895,680	30,320,197	27,377,798
Cattle hides	No. 450,975	502,849	340,221	342,253	458,829	381,238
	£ 389,108	572,788	422,594	407,984	796,544	616,315
Rabbit and hare skins	lb. 6,473,329	10,851,764	11,004,446	11,860,570	9,316,863	8,223,218
	£ 1,044,373	2,112,674	2,231,637	2,437,010	1,886,523	1,948,852
Sheep skins with wool	No. 1,831,504	1,709,325	2,539,025	2,808,444	3,170,630	3,176,168
	£ 768,891	1,125,568	1,067,633	1,102,775	1,311,511	1,343,559
Frozen lamb	lb. 9,209,120	7,814,107	13,417,875	19,998,339	9,783,792	9,811,112
	£ 303,708	295,931	473,403	480,732	273,857	296,205
Mutton	lb. 6,545,909	8,517,203	17,527,373	25,987,650	7,887,037	12,832,235
	£ 149,187	210,784	447,074	375,061	136,888	265,959
Rabbits and hares	prs. 3,304,669	3,288,284	3,510,311	2,881,701	2,884,026	1,956,508
	£ 302,783	299,991	340,171	257,641	262,759	193,525
Leather	£ 430,664	367,547	432,525	388,990	339,394	321,119
Tallow	cwt. 180,530	299,892	309,871	450,143	283,937	300,284
	£ 352,115	608,801	593,598	761,585	457,255	541,039
Butter... ..	lb. 9,950,999	44,243,504	26,354,624	17,753,508	20,820,334	15,455,928
	£ 752,581	2,935,658	1,895,642	1,239,541	1,392,797	1,160,443
Wheat... ..	centals. 3,183,153	19,095,330	6,443,021	6,457,472	2,971,449	11,361,843
	£ 1,281,768	11,106,223	3,523,022	3,031,014	1,444,290	4,609,101
Flour	centals. 3,157,037	2,626,474	3,316,339	3,059,471	2,015,840	3,664,001
	£ 1,664,480	1,924,422	2,288,724	1,984,684	1,285,299	1,992,130
Copper ingots	cwt. 81,884	65,954	56,073	25,630	47,157	57,904
	£ 283,225	220,263	191,342	81,923	157,930	225,029
Lead, pig	cwt. 1,697,919	1,857,535	1,233,485	1,476,170	1,494,684	995,531
	£ 2,583,894	3,280,026	2,115,320	2,193,797	1,637,207	1,132,592
Tin, ingots	cwt. 34,327	30,975	31,609	32,718	26,270	21,049
	£ 376,854	386,255	430,934	483,348	340,419	232,468
Coal	tons 1,336,483	974,704	792,144	803,254	546,075	311,608
	£ 1,460,122	1,073,560	879,581	961,551	680,929	389,407
Timber, undressed	super ft. 26,957,934	37,029,818	23,485,965	18,281,645	16,576,815	13,989,086
	£ 437,029	610,824	390,439	301,671	283,053	241,504
Bullion and specie	£ 526,617	133,001	3,251,469	10,304,680	2,071,413	176,809
Other	£ 4,128,416	3,994,754	4,315,043	4,717,613	4,415,555	4,106,553
Total	£ 40,506,465	58,212,750	51,565,742	60,407,280	49,493,820	47,170,407

The value of the wool sent to Great Britain and Northern Ireland in 1928-29 was £6,862,611, and the direct exports to other European countries in the aggregate reached nearly £14,600,000; including France £5,359,606, Germany £4,118,910, Belgium £3,272,844, Italy £1,160,681, and Russia £591,036. Japan purchased wool to the value of £5,235,564, and the United States £612,971.

The United States received the largest quantities of hides and skins, viz., rabbit and hare skins to the value of £1,083,709, cattle hides £256,645, sheep skins £189,316, and kangaroo skins £163,724. Skins sent to Great Britain included rabbit and hare skins £630,975, and sheep skins £154,896; to France sheep skins with wool £935,603; to Italy cattle hides £170,316; and to Germany rabbit and hare skins £125,881.

The exports of butter and meat were sent for the most part to Great Britain, viz., butter £834,795, frozen mutton and lamb £448,238, and other frozen meat £206,369. Meat valued at £131,842 and butter at £151,754 were sent to Eastern countries.

Leather and tallow are important items of the export trade. The leather exported to the Eastern ports in 1928-29 was valued at £219,205. The principal consignments of tallow were sent to Japan, £223,768, and Great Britain £106,259.

The value of the wheat sent to Great Britain and Northern Ireland in 1928-29 was £1,590,186, Japan £661,696, India £570,145, Italy £362,701, and China £157,782. The principal markets for flour were: Great Britain £111,217, Egypt £903,875, British Malaya £252,957, Netherlands East Indies £291,549, and Philippine Islands £89,297.

The bulk of the trade in metals was with the United Kingdom, viz., copper ingots £166,451 and pig lead £963,870. Pig lead sent to Japan was valued at £99,223, and tin valued at £146,115 was consigned to the United States.

New Zealand, which usually provides the main outlet for coal received 164,384 tons, valued at £206,852, also 8,782,559 super. feet of undressed timber valued at £146,516.

Sausage casings to the value of £100,631 and pearl-shell £117,036 were sent to the United States of America, tobacco valued at £127,336 and talking machines £166,138 to New Zealand.

Such commodities as tinned meat, condensed milk, jams, biscuits, etc., which were exported in large quantities during the war period are now relatively unimportant items of the export trade. The readiness with which production was increased then to meet the extraordinary demand is evidence of the fact that there is ample scope for development if markets were available.

Re-exports.

There is a fairly large re-export trade in provisions and manufactured articles with New Zealand, New Caledonia, Fiji, and other South Sea islands, but the principal item is copra, which is transhipped at Sydney to European ports. During the year ended June, 1929, the quantity of copra re-exported was 424,722 cwt., valued at £397,862, including 204,277 cwt., valued at £203,342, to France, and £145,170 cwt., £123,960, to the United States of America. Other important items of foreign produce re-exported during the year were piece-goods, £98,485; machinery, £202,574; vehicles, £116,648; metals and other metal manufactures, £148,839; tea, £81,072; rice, £54,539; tobacco, cigars and cigarettes, £105,440; jewellery and precious stones, £86,762.

Oversea Exports—Ships' Stores.

The figures relating to oversea exports, as shown in the foregoing tables, do not include exports in the form of ships' stores. This is an important

branch of the trade of the State, as will be seen from the following statement of the value of ships' stores exported from New South Wales in 1911 and 1921, and in each of last four years:—

Year ended 30th June.	Oversea Ships' Stores Exported from New South Wales.		
	Australian Produce.	Other Produce.	Total.
	£	£	£
1911*	839,700	76,547	916,247
1921	2,028,728	300,969	2,329,697
1926	1,906,153	322,007	2,228,160
1927	1,608,241	142,009	1,750,250
1928	1,485,038	93,737	1,578,775
1929	1,210,007	84,241	1,294,248

* Calendar Year.

The most important items of Australian produce exported as ships' stores in 1928-29 were bunker coal, 645,266 tons, valued at £342,600; meat, fresh, 1,621,798 lb., £42,645; frozen meat, 2,536,486 lb., £75,897; fish, fresh or frozen, 538,946 lb., £22,350; butter, 423,696 lb., £31,698; ale and beer, 96,382 gallons, £20,775. The chief item of foreign produce was oil, 1,461,568 gallons, valued at £32,009.

CUSTOMS AND EXCISE TARIFFS.

The Customs tariff is contained in the Customs Tariff Act, 1921-1929. There are three tariffs, viz., (1) British preferential, (2) intermediate, (3) general. The British preferential tariff applies to products of the United Kingdom, and by proclamation it may be applied, wholly or in part, to any part of the British Dominions, if the Tariff Board, in view of reciprocal arrangements, has reported upon the question and the Federal Parliament has agreed. Under similar conditions the intermediate tariff may be applied in respect of goods from any part of the British Dominions or from a foreign country. The general tariff is imposed on all goods to which the other tariffs do not apply. In 1925 material alterations were made in the conditions under which the British preferential tariff may be applied.

The tariff list includes some duties which may be deferred upon the recommendation of the Tariff Board until the date when, in the opinion of the Board, the goods will be produced locally in reasonable quantities and of satisfactory quality.

A number of alterations in the Custom rates were made in September, 1925, when a new tariff schedule was introduced into the Federal Parliament with the object of assisting some branches of the textile industry and the engineering trades. The duty on petroleum and shale oils for use in motor-driven vehicles using public roads was increased in August, 1926, by 2d. per gallon; the revised rates, viz., British preferential, 2½d.; intermediate and general tariffs, 3d. per gallon, were replaced in December, 1929, by a rate of 4d. per gallon on all petrol. In November, 1927, there was another revision of the tariff to provide additional protection to Australian industries by increasing duties on such items as butter and cheese, potatoes and rice, textiles, and products of metal and machinery works; and increased preference was afforded to British industries in respect of such items as gloves, lace, motor chassis, etc.

In August, 1929, the Government of the Commonwealth decided to increase some of the duties with the main purpose of obtaining additional revenue from customs and excise. The schedules were validated by temporary measures pending a general election and they were superseded by new schedules in December, 1929. In the new customs tariff schedule the items of the August schedule were retained and additional items were embodied with the object of affording further protection to local industries.

Reciprocal trade treaties are in operation in respect of New Zealand and Canada. A measure of preference is accorded to the territories of Papua and New Guinea in terms of an Act which commenced on 1st April, 1926, certain tropical products imported direct therefrom being free of duty. A reciprocal trade treaty with South Africa, which commenced in 1906, was abrogated in July, 1926.

Reciprocity with New Zealand was introduced in 1922. The British preferential tariff is applied generally to goods produced in New Zealand, and special rates have been fixed in relation to certain commodities. The British preferential rates are charged also on goods transhipped from New Zealand, which would have been classified under the British preferential tariff if they had been imported direct from the country of origin to Australia. The New Zealand Re-exports Act, 1924, which commenced on 1st October, 1925, provides that when foreign goods are re-exported to Australia from New Zealand the value for duty shall be the sum of the following:—(a) The current domestic value in the country of origin, (b) charges for placing goods f.o.b. at port of export to New Zealand, (c) 10 per cent. of the sum of (a) + (b), (d) 10 per cent. of the sum of the foregoing amounts. In 1926 it was agreed reciprocally that unless by mutual arrangement a custom duty shall not be imposed, nor an existing rate increased, on the products of either country entering the other until six months' notice has been given.

The tariff treaty with Canada was brought into operation on 1st October, 1925.

The Customs Tariff (Industries Preservation) Act, 1921-22, provides for the imposition of special customs duties to prevent the dumping of foreign goods in Australia to the detriment of local industries and to safeguard the preference accorded to the United Kingdom under the tariff. These duties, which are additional to those payable under the tariff, may be imposed on the recommendation of the Tariff Board.

The excise tariff is contained in the Excise Tariff Act, 1921-1929. The dutiable goods are beer, spirits, saccharin, starch made from imported rice, tobacco, cigars, cigarettes, and snuff.

The Department of Trade and Customs issues an official guide to the tariff which shows in detail a classification, for purposes of duty, of all articles of import, and the rates of tax.

Customs and Excise Revenue.

The following statement shows the net amount of customs and excise revenue collected in New South Wales under each division of the tariff during the years ended June, 1911, 1921, 1928 and 1929. Sydney is an important distributing centre for the whole of Australia, consequently the collections include receipts on account of goods which, in the course of trade, were transferred to and consumed in other States. A notable instance is the excise collected in New South Wales on cigarettes made locally, though more than half the output of the factories is exported subsequently to

other parts of the Commonwealth. On the other hand, the receipts do not include duties on goods transferred from other States for consumption in New South Wales:-

Tariff Division.	Net Collections during year ended 30th June.			
	1911.	1921.	1928.	1929.
Customs—	£	£	£	£
1. Stimulants, Ale, Beer, etc.	1,109,212	832,473	1,511,182	1,415,194
2. Narcotics	506,426	1,013,607	1,562,553	1,580,008
3. Sugar	67,438	1,206	6,296	4,752
4. Agricultural Products and Groceries... ..	354,855	339,997	634,976	588,967
5. Apparel and Textiles ...	822,576	2,626,199	2,425,505	2,273,631
6. Metals and Machinery ...	477,766	2,050,953	2,336,228	2,213,895
7. Oils, Paints, and Varnishes	92,800	231,733	983,011	1,117,998
8. Earthenware, etc. ...	128,593	276,091	324,566	332,390
9. Drugs and Chemicals ...	42,350	214,132	257,902	263,556
10. Wood, Wicker, etc. ...	156,632	214,043	761,170	777,302
11. Jewellery and Fancy Goods	120,335	395,041	504,945	495,139
12. Leather and Rubber ...	110,351	284,894	613,149	350,109
13. Paper and Stationery ...	83,521	490,762	365,262	371,941
14. Vehicles	66,317	361,343	1,090,941	1,329,029
15. Musical Instruments ...	50,707	112,997	176,706	120,185
16. Miscellaneous	104,395	323,468	468,452	472,191
Other Receipts... ..	12,678	29,043	27,848	31,282
Total, Custom Duties...	£4,306,952	£9,797,982	£14,050,692	£13,737,569
Excise—				
Beer	210,728	2,019,397	2,395,044	2,493,000
Spirits	119,169	677,537	770,445	743,786
Starch	507	...	44	...
Sugar	261,758	...	...	...
Tobacco... ..	188,763	586,760	740,450	783,410
Cigars	958	18,072	16,955	13,762
Cigarettes	250,093	1,721,252	1,856,883	1,849,629
Licenses—Tobacco	858	2,905	4,828	3,925
„ Other	1,401	1,574	...	...
Total, Excise Duties ...	£1,034,235	£5,027,497	£5,784,649	£5,887,512
Total, Customs and Excise Duties	£5,341,187	£14,825,479	£19,835,341	£19,625,081

The customs revenue increased more than threefold during the period under review, and the excise revenue was more than five and a half times greater in 1928-29 than in 1911. The excise duties now contribute 30 per cent. of the customs and excise revenue as compared with 19 per cent. in 1911. More than 45 per cent. of the customs and excise revenue is obtained from duties on stimulants, etc., and narcotics, viz., £8,878,789, as compared with £2,385,349 in 1911 and £6,869,098 in 1920-21. These amounts were equivalent to £3 12s. 7d., £1 8s., and £3 5s. 9d. per head of population in the respective years.

Notwithstanding increases of 100 per cent. or more in the rates of duty, the customs collections in respect of stimulants, ale, beer, etc., increased by only 27.6 per cent. between 1911 and 1928-29. The excise on beer and spirits rose from £329,897 to £3,236,786. The excise revenue from tobacco and cigarettes also has increased in a remarkable degree. The duties in respect of the groups apparel and textiles and metals and machinery yielded the largest amount of the customs revenue in 1928-29, next in order being narcotics and stimulants. The revenue from customs duties on vehicles increased from £66,317 in 1911 to £1,329,029 in 1928-29.

The following table shows the net collections of customs and excise revenue in New South Wales during each of the five years ended June, 1929:—

Collections.	Year ended 30th June.				
	1925.	1926.	1927.	1928.	1929.
	£	£	£	£	£
Customs Duties.. ..	11,645,992	12,472,972	14,143,132	14,050,692	13,737,569
Excise Duties	5,182,741	5,470,900	5,695,776	5,779,821	5,883,587
Licenses	4,732	4,930	4,574	4,828	3,925
Total £	16,833,465	17,948,802	19,843,482	19,835,341	19,625,081
Per head of population	£ s. d. 7 9 4	£ s. d. 7 16 3	£ s. d. 8 9 1	£ s. d. 8 5 3	£ s. d. 8 0 4

SHIPPING.

OWING to the geographic position of New South Wales, the progress of the national industries is dependent to an unusual degree upon shipping facilities. Therefore, efficient transport services are essential to maintain regular and speedy communication and to place the staple products upon distant markets in a satisfactory condition without unduly increasing the cost. In modern ships special provision is made for refrigerated cargoes, and improved methods of carrying perishable products have promoted the growth of a permanent export trade in such commodities as butter, frozen meat, and fruit.

CONTROL OF SHIPPING.

Prior to the inauguration of the Commonwealth in 1901, the shipping of New South Wales was regulated partly by an Imperial enactment, the Merchant Shipping Act, 1894, and partly by the laws of the Parliament of New South Wales. Under the Commonwealth Constitution the Federal Parliament is empowered to make laws with respect to trade and commerce with other countries and among the States, including navigation and shipping, and in relation to such matters as lighthouses, lightships, beacons and buoys, and quarantine.

Special legislation relating to navigation and shipping is contained in the Federal Navigation Act, 1912-26. It is drafted on the lines of the Merchant Shipping Act and of the Navigation Act of New South Wales and embodies the rules of an international convention for Safety of Life at Sea signed in London in 1914.

The provisions of the Act apply to ships registered in Australia, also to other British ships on round voyages to or from Australia. The Governor-General may suspend its application to barges, fishing boats, pleasure yachts, missionary ships, or other vessels not carrying passengers or goods for hire; and the High Court of Australia has decided that clauses relating to manning, accommodation, and licensing do not apply to vessels engaged in purely intra-state trade.

A ship may not engage in the coasting trade of Australia unless licensed to do so, and a license may not be granted to a ship in receipt of a foreign subsidy. Licensees, during the time their ships are so engaged, are obliged to pay to the seamen wages at current rates ruling in Australia, and, in the case of foreign vessels, to comply with the same conditions as to manning and accommodation for the crew as are imposed on British ships. Power is reserved to the Minister for Trade and Customs to grant permits, under certain conditions, to unlicensed British ships to engage in the coasting trade if a licensed British ship is not available for the service, or if the service by licensed shipping is inadequate. A permit may be continuing, or for a single voyage.

The Governor-General may suspend by proclamation the operation of the foregoing provisions; and under certain conditions he may grant permission to British ships to carry tourist traffic between ports in the Commonwealth and the territories, such traffic to be exempt from the provisions of the Navigation Act relating to the coasting trade of Australia.

The part of the Navigation Act which relates to pilotage has not yet been brought into operation, and this service is regulated under the State Navigation Act of 1901.

The State Department of Navigation exercises control over the ports of New South Wales, and administers the Harbour and Tonnage Rates Act, 1920, which authorises the collection of shipping rates and port dues, except in Sydney Harbour, which is subject to the control of the Sydney Harbour Trust.

Matters relating to seaboard quarantine are administered by the Commonwealth in terms of the Quarantine Act, 1908-24, and arrangements may be made with the State Government to aid in carrying out the law. The Act defines the vessels, persons, animals, plants, and goods which are subject to quarantine, and provides for examination, detention, and segregation in order to prevent the introduction or spread of disease or pests. Imported animals or plants may not be landed without a permit granted by a quarantine officer. The master, owner, and agent of a vessel ordered into quarantine are severally responsible for the expenses, but the Commonwealth Government may undertake to bear the cost in respect of vessels trading exclusively between Australasian ports. Quarantine expenses in the case of animals and goods are defrayed by the importer or owner.

Vessels arriving from overseas ports are examined by quarantine officers only at the first port of call in Australia unless they have travelled along the northern trade route, when they are inspected again at the last port of call. The quarantine station of New South Wales is situated in Sydney Harbour, near the entrance to the port.

The liability of shipowners, charterers, etc., in regard to the transportation of goods is defined by the Sea-carriage Acts passed by the State and the Commonwealth Parliaments. The State Act passed in 1921 applies to the intra-state trade, and the Commonwealth Act of 1924 applies to the interstate and the outward overseas trade.

INTERSTATE AND OVERSEA SHIPPING.

The figures in this chapter relating to shipping are exclusive of particulars concerning ships of war, cable-laying vessels, and yachts, which are not included in the official shipping records. Where tonnage is quoted it is net tonnage.

Vessels Entered and Cleared.

In compiling the records of overseas and interstate shipping, a vessel is treated as an entry once and as a clearance once for each voyage to and from New South Wales, being entered at the first port of call, and cleared at the port from which it departs. The repeated voyages of every vessel are included.

The aggregate number and tonnage of interstate and overseas vessels which arrived in and departed from ports of New South Wales in various years since 1901, with the average net tonnage per vessel, are shown in the following statement:—

Year ended 30th June.	Entries.		Clearances.		Average Tonnage per Vessel.
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	
1901*	2,760	4,133,200	2,853	4,274,101	1,498
1911*	3,127	6,822,135	3,146	6,833,782	2,177
1921	3,019	7,123,331	3,023	7,122,209	2,358
1926	2,945	8,534,292	2,906	8,495,031	2,910
1927	3,229	9,084,476	3,267	9,213,319	2,817
1928	3,039	8,674,540	3,041	8,705,497	2,859
1929	2,865	8,516,413	2,847	8,532,023	2,985

* Year ended 31st December.

In 1926-27 the tonnage of vessels entered and cleared was the largest on record. It declined by 5 per cent. in the following year, when there was a smaller quantity of wheat available for oversea export and a marked diminution in the coal trade. There was a further decline in 1928-29, mainly in interstate trade resulting from dislocations in the coal-mining industry.

The number of vessels which entered in ballast during 1928-29 was 355, their aggregate net tonnage being 686,591 tons, or 8.1 per cent. of the total. The clearances in ballast consisted of 205 vessels, 585,481 tons (net), or only 6.9 per cent. of the total tonnage cleared.

Very few sailing vessels are engaged in the trade of New South Wales, and in 1928-29 the entries included only 2 sailers with an aggregate tonnage of 2,400 tons, and the clearances 3 vessels, 2,686 tons.

A comparison of the shipping of the Australian States shows that the tonnage trading to and from New South Wales is far in excess of the figures of any other State. The following statement shows the entries and clearances during the year ended 30th June, 1929, excluding the coastal trade:—

State.	Interstate and Oversea.			
	Entries.		Clearances.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales	2,865	8,516,413	2,847	8,532,023
Victoria	2,474	6,798,092	2,466	6,815,305
Queensland	970	3,192,170	960	1,178,750
South Australia	1,224	4,640,476	1,268	4,712,872
Western Australia	783	3,688,802	808	3,674,298
Tasmania	1,028	1,234,589	1,030	1,252,153
Northern Territory	61	129,997	47	127,593

NATIONALITY OF VESSELS.

The majority of the vessels engaged in the trade of the State of New South Wales are under the British flag, the deep-sea trade with the mother country and British possessions being controlled chiefly by shipowners of the United Kingdom, and the interstate trade by Australian shipping companies. In the table below the British and the foreign shipping are shown under distinctive headings.

Year ended 30th June.	Net Tonnage Entered and Cleared.				Percentage.		
	Australian.	Other British.	Foreign.	Total.	Australian.	Other British.	Foreign.
1901*	3,348,502	3,714,217	1,344,582	8,407,301	39.8	44.2	16.0
1911*	4,645,195	6,594,649	2,416,073	13,655,917	34.0	48.3	17.7
1921	4,739,555	6,739,914	2,766,071	14,245,540	33.3	47.3	19.4
1926	5,540,386	8,389,138	3,099,799	17,029,323	32.5	49.3	18.2
1927	6,448,697	8,768,280	3,080,818	18,297,795	35.3	47.9	16.8
1928	5,799,805	8,396,707	3,183,525	17,380,037	33.4	48.3	18.3
1929	4,656,402	9,247,088	3,144,946	17,048,436	27.3	54.3	18.4

* Year ended 31st December.

The Australian tonnage was less than usual in 1928-29, when fewer vessels were engaged in the interstate coal trade and the regular voyages of Australian vessels to and from Great Britain had ceased in consequence of the sale of the Commonwealth Government steamships. On the other hand, the British tonnage increased by reason of the large quantities of wool and wheat exported and activity in the import trade.

Particulars relating to the nationality of vessels engaged in trade with New South Wales in 1913, 1922-23 and 1928-29, are shown in greater detail in the following statement:—

Nationality of Shipping.	Entries and Clearances.						Net Tonnage—Percentage of each Nationality.		
	1913.*		1922-23.		1928-29.		1913.*	1922-23.	1928-29.
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.			
British—									
Australia ..	3,221	5,711,398	3,080	5,824,694	2,651	4,656,402	35·3	35·1	27·3
New Zealand ..	771	1,359,138	284	248,641	421	867,578	8·4	1·5	5·1
Great Britain ..	1,589	6,081,117	1,682	7,548,841	1,573	7,799,698	37·5	45·5	45·8
Other British ..	22	30,459	202	550,540	202	579,812	·2	3·3	3·4
Total ..	5,613	13,182,112	5,248	14,172,716	4,847	13,933,499	81·4	85·4	81·6
Foreign—									
Denmark ..	2	768	18	62,317	13	36,140	·0	·4	·2
France ..	150	313,252	110	230,629	110	235,785	1·9	1·4	1·4
Germany ..	487	1,533,728	30	81,127	104	443,792	9·5	·5	2·6
Italy ..	29	47,770	23	101,364	38	161,890	·3	·6	1·0
Netherlands ..	52	128,870	111	397,372	99	506,766	·8	2·4	8·0
Norway ..	183	353,843	93	247,778	97	344,942	2·2	1·5	2·0
Sweden ..	23	57,643	59	166,964	56	175,849	·4	1·0	1·0
Japan ..	103	332,471	183	616,898	200	698,986	2·0	3·7	4·1
United States of America ..	76	148,853	143	473,728	140	517,414	·9	2·9	3·0
Other Nationalities	50	89,292	17	35,598	8	23,882	·6	·2	·1
Total ..	1,155	3,003,490	795	2,413,775	865	3,144,946	18·6	14·6	18·4
Grand Total ..	6,768	16,188,602	6,043	16,586,491	5,712	17,048,436	100·0	100·0	100·0

* Year ended 31st December.

The tonnage owned in Great Britain represents nearly 46 per cent. of the total. The Australian tonnage usually represents more than one-third, though in 1928-29 the proportion was only 27 per cent. The largest proportion of foreign tonnage is Japanese. The foreign tonnage in 1928-29 was 18·4 per cent. of the total, as compared with 14·6 per cent. in 1922-23, and 18·6 in 1913.

Of the Australian tonnage, entrances and clearances in interstate trade amounted to 4,274,623 tons, or 92 per cent., and voyages in oversea trade to 381,779 tons, the tonnage to and from New Zealand being 205,643. Of the other British tonnage, including ships owned in Great Britain, 3,184,358 tons were entered from and cleared for interstate ports, and 2,850,251 tons plied between Australia and Great Britain. The tonnage belonging to other nations was employed chiefly in the foreign trade.

During the year 1928-29 the interstate cargo discharged at ports in New South Wales amounted to 1,877,919 tons, and the oversea to 2,284,817 tons, and the shipments to interstate ports represented 2,519,279 tons, and to

oversea countries 1,601,254 tons. The interstate trade is carried for the most part in Australian ships, and the nationality of the vessels in which oversea trade is carried is shown below:—

Nationality of Shipping.	1926-27.		1927-28.		1928-29.	
	Discharged.	Shipped.	Discharged.	Shipped.	Discharged.	Shipped.
Interstate Cargoes ...	Tons. 1,768,175	Tons. 3,713,721	Tons. 1,712,724	Tons. 3,289,426	Tons. 1,877,919	Tons. 2,519,279
Oversea Cargoes.						
Australia ...	162,698	195,261	172,482	210,635	81,102	115,508
New Zealand ...	67,179	388,424	88,534	314,235	67,475	272,432
Great Britain ...	1,233,243	755,993	1,256,804	460,413	1,421,383	625,224
Other British ...	67,496	32,210	57,099	34,190	80,634	43,261
Total British ...	1,530,616	1,378,948	1,574,419	1,019,473	1,650,594	1,062,425
Denmark ...	44,707	4,179	79,175	8,181	47,449	13,748
France ...	18,916	87,942	21,815	88,072	13,567	79,457
Germany ...	49,142	83,430	49,759	32,968	66,269	58,991
Italy ...	26,008	34,494	18,585	22,943	17,438	28,466
Japan ...	73,159	56,426	66,678	44,995	57,014	124,993
Netherlands ...	39,211	75,633	57,688	60,007	62,262	87,994
Norway ...	192,228	102,302	156,708	46,648	150,498	60,434
Sweden ...	95,673	35,353	89,595	34,750	56,311	27,209
United States of America...	119,260	32,968	158,045	35,905	158,386	33,334
Other Foreign ...	7,215	33,947	3,366	142	5,029	24,203
Total, Foreign ...	665,519	546,674	701,414	374,611	634,223	538,829
Total, Oversea ...	2,196,135	1,925,622	2,275,833	1,394,084	2,284,817	1,601,254
Grand Total ...	3,964,310	5,639,343	3,988,557	4,683,510	4,162,736	4,120,533

In 1928-29 British vessels carried 72 per cent. of the oversea cargo discharged at ports in New South Wales and 66 per cent. of the cargo shipped abroad.

DIRECTION OF SHIPPING TRADE.

The shipping records do not disclose the full extent of communication between New South Wales and other countries, as they relate only to terminal ports and are exclusive of the trade with intermediate ports, of which some are visited regularly by many vessels on both outward and inward journeys. But the following statement of the tonnage entered from and cleared for interstate ports and oversea countries, grouped according to geographical position, indicates, as far as practicable, the growth or decline of shipping along the main trade routes since 1911:—

Country.	1911.		1920-21.		1928-29.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
Australian States ...	3,519	6,528,328	3,206	6,382,297	3,506	8,507,481
New Zealand ...	623	1,223,238	769	1,473,057	365	956,749
Europe ...	771	3,033,630	582	2,798,459	646	3,741,568
Africa ...	59	114,035	81	225,856	17	54,003
Asia and Pacific Islands ...	710	1,410,164	1,009	2,179,040	769	2,123,480
North and Central America ...	253	638,393	299	1,003,137	400	1,636,969
South America ...	338	708,129	96	183,694	9	28,186
Total ...	6,273	13,655,917	6,042	14,245,540	5,712	17,048,436

Shipping to and from the other Australian States in 1928-29 was greater by 2,125,000 tons than in 1920-21. A decrease was recorded in respect of the New Zealand trade and the tonnage engaged in trade with North and Central America increased by 63 per cent. The South American trade, which was mainly for the export of coal, has lost its former importance.

The interstate and oversea trade of New South Wales is confined practically to three centres, viz., Sydney, Newcastle and Port Kembla, and the distribution amongst the ports of the inward trade at intervals since 1901 is shown in the following table. On each voyage a vessel is counted as an entry only at the first port of call in New South Wales and intra-state trade is excluded, therefore the figures do not indicate the total tonnage entered at each port.

Year ended 30th June.	Port Jackson (Sydney).		Port Hunter (Newcastle).		Port Kembla.		Other Ports.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
1901*	1,884	2,953,511	702	1,036,178	53†	67,558†	140	45,864
1911*	2,181	5,246,351	701	1,357,132	64	102,866	81	115,786
1921	1,869	4,776,182	1,082	2,255,040	42	85,514	26	6,595
1926	1,988	6,304,313	826	1,964,191	83	243,918	48	21,870
1927	2,174	6,809,172	890	1,991,909	90	241,208	75	42,187
1928	2,137	6,674,798	793	1,772,952	72	200,825	37	25,965
1929	2,071	6,768,664	620	1,355,411	144	366,401	30	25,937

*Year ended 31st December.

† Wollongong.

Many vessels, including steamers engaged regularly in the trade of New South Wales, discharge cargo at Sydney, then proceed to Newcastle for coal. Such vessels are counted as entries at Sydney only, therefore the inward shipping of Newcastle is greatly in excess of the tonnage stated in the table. The trade of Port Kembla increased as a result of the establishment of important industries in the locality. The decline in the inward trade of other ports, as compared with the year 1911, was due mainly to the omission of Twofold Bay as a port of call for interstate vessels.

The trade of the various ports, as indicated by the quantity of interstate and oversea cargo discharged and shipped, is shown by the following particulars relating to the year 1928-29:—

Port.	Cargo Discharged.		Cargo Shipped.	
	Interstate.	Oversea.	Interstate.	Oversea.
	Tons.	Tons.	Tons.	Tons.
Sydney	962,779	2,106,814	669,227	1,265,845
Newcastle	711,637	123,598	1,647,563	251,581
Port Kembla	203,455	54,405	134,741	73,605
Other Ports	48	...	67,748	10,223
Total	1,877,919	2,284,817	2,519,279	1,601,254

The cargoes shipped at Newcastle in 1928-29 diminished by 830,077 tons as compared with the preceding year. This was due primarily to an industrial dislocation in the coal-mines of the district.

HARBOURS AND ANCHORAGES.

Along the coast of New South Wales, there are numerous ports, estuaries, and roadsteads, which provide shelter to shipping and afford facilities for trade.

There are four natural harbours where vessels of deep draught may enter, viz., Port Stephens, Broken Bay, Port Jackson (Sydney Harbour) and Jervis Bay. Port Jackson ranks first by reason of extent, natural facilities, and volume of trade. Port Stephens, 21 nautical miles north of Newcastle, and Broken Bay at the mouth of the Hawkesbury River, have not been developed owing to proximity with Newcastle and Sydney Harbour respectively. Jervis Bay is 82 miles south of Sydney; part of the bay has been ceded to the Commonwealth Government as a port for Canberra, the Federal Capital. Newcastle is a bar harbour at the mouth of the Hunter River, where extensive accommodation has been provided for oversea shipping. Artificial harbours have been constructed at Coff's Harbour, Wollongong, Port Kembla, Shellharbour, Kiama, and Ulladulla. With the exception of Port Kembla, they are useful only for small vessels.

There are a number of estuarine harbours, but the entrances are usually blocked to some extent by sandbars, formed by the combined action of ocean currents and waves and wind. There are also numerous roadsteads or anchorages which afford shelter to vessels of moderate draught during southerly or south-easterly weather. Breakwaters and training-walls have been constructed to control the sand movement at the majority of the bar harbours, so that the navigating channels may be maintained with little difficulty.

The shipping trade of the ports other than Sydney, Newcastle, and Port Kembla is relatively small.

Sydney Harbour.

Port Jackson (Sydney Harbour) is the principal port of New South Wales. It has a safe entrance and deep waters, and its steep foreshores provide good shelter for vessels at anchor. It is almost landlocked, resembling a lake rather than a seaport. The entrance, which is three-quarters of a mile wide, lies between bluff headlands, and faces eastward, so that it is protected from southerly gales, which expend their violence on North Head instead of sweeping directly into the harbour.

At the Heads the depth of water is not less than 80 feet at low water, ordinary spring tide. Near the entrance the fairway divides into two channels about half a mile long and over 700 feet wide. The depth is 40 feet, and it could be increased if required, as the bottom is sand and the channels do not silt up when deepened. Very little allowance need be made for scend, because the channels are protected by the headlands. They are well lighted and, by night as well as by day, they are navigable by the largest vessels afloat.

The total area of Port Jackson is 14,284 acres, or about 22 square miles. The coastline, being irregular, is over 188 miles in length, and gives facilities for extensive wharfage. The area which may be designated the harbour proper, embraced by 75 miles of foreshores, i.e., below the Iron Cove, Parramatta River, and Lane Cove bridges, and the Spit, Middle Harbour, covers 8,980 acres. About three thousand acres have a depth ranging from 35 to 160 feet at low water, ordinary spring tide, and excluding the fairway and

the bays in which most of the shipping is accommodated at present, there are over 1,000 acres suitable for anchoring deep-sea vessels. The rise and fall of the tide in the harbour is from about 3 feet to 6 feet.

The control of the Port was vested in the Sydney Harbour Trust in the year 1901. The Trust consists of three Commissioners appointed for a term of seven years, with control over the port and shipping, harbour lights, buoys and wharves, and authority to undertake works for the preservation and improvement of the port, to appropriate wharves, stores, etc., to special uses, and to levy rates and charges in respect of vessels and goods and for the use of property.

The Trust was debited with the value of the resumed property and improvements, amounting to £4,700,000 in 1901, and, by reason of extensive improvements effected under a comprehensive scheme of reconstruction, the capital debt, as at 30th June, 1929, was nearly £12,000,000. The shipping accommodation has been largely remodelled, old wharves being replaced and new wharves and jetties and sheds constructed to keep pace with a rapidly increasing trade. The depth of water has been increased in various parts of the harbour, sea-walls have been built, and the approaches to the wharves have been improved. A roadway, 100 feet wide, has been constructed along the water-front from Circular Quay to Erskine-street, via Walsh Bay.

Amongst the property under the administration of the Harbour Trust is a considerable area adjoining the water-front, embracing dwellings, shops, and stores. The area has been improved greatly by the demolition of old buildings to permit the widening of the streets and the erection of modern dwellings and of business premises and stores.

The wharves are situated in close proximity to the business centre of the city, about 4 or 5 miles from the Heads. Excluding private lighter and ferry berths there are 77,030 feet of wharfage in Sydney Harbour. The principal wharves are leased to the various shipping companies whose vessels engage regularly in the trade of the port, and other wharves are reserved for vessels which visit the port occasionally. Details relating to the number and length of the berths are shown below:—

Particulars.	Controlled by Sydney Harbour Trust.		Private Wharfage.		Total.	
	No. of Berths.	Length.	No. of Berths.	Length.	No. of Berths.	Length.
Ship berths—		feet.		feet.		feet.
Oversea	67	35,245	14	3,819	81	39,064
Interstate	24	9,242	3	516	27	9,758
Intrastate	38	10,523	5	772	43	11,295
Cross wharves adjoining ships' berths	39	4,693	...	...	39	4,693
Harbour trade berths	19	4,633	30	4,160	49	8,793
Ferry berths	25	3,427	...	...	25	3,427
Total	212	67,763	52	9,267	264	77,030

The berths in Woolloomooloo Bay are used in connection with a general oversea trade, and the largest vessels visiting the port are accommodated there. Commodious sheds have been erected on the wharves and electric conveyors installed. The southern portion of Circular Quay is used for ferry traffic, but several berths are available on the eastern and western sides for oversea steamers. In Walsh Bay the waters are deep, and

advantage was taken of the steep shore to increase the capacity of the jetties by erecting sheds of two storeys, the upper floors having access by means of bridges to streets on a higher level. Darling Harbour contains a large number of berths, and some of them are directly connected with the railway system.

On a spit of land, known as Glebe Island, lying between Rozelle Bay and White Bay, works have been constructed to facilitate the shipment of wheat. Grain brought by rail from the country districts may be unloaded from the trucks, at the rate of 80,000 bushels per hour, into a large terminal elevator having a capacity of 6,500,000 bushels, and it may be delivered from the elevator into the holds of vessels at the rate of 60,000 bushels per hour, four vessels being loaded simultaneously.

Special facilities are available along the waterside for other important classes of trade, such as wool stores fitted with appliances to expedite the handling of the staple product, and accommodation is reserved for the storage of hazardous goods. By private enterprise, a plant has been installed at Ball's Head, where bunkers may be replenished rapidly with coal or oil.

The wharves are situated on the southern shore of the port, and the northern is used mainly for residential sites. The ferry steamers on which traffic is carried across the harbour are certificated as to seaworthiness by the Department of Navigation and licensed by the Sydney Harbour Trust. During 1928-29 certificates were issued to steamers in Port Jackson with an aggregate tonnage of 8,607 tons and capacity to carry 44,884 passengers.

An arch bridge to span the harbour from Dawes' Point to Milson's Point is under construction. It will provide for pedestrian, vehicular and railway traffic, and is to be completed in 1932. It is estimated that the cost of the bridge and approaches will amount to about £6,000,000. A description of the bridge and particulars relating to the progress of the undertaking are published in the chapter relating to Roads and Bridges.

There are nine islands in Port Jackson. Four are reserved as public pleasure resorts. Garden Island is used as a depot by the Australian Navy. On Goat Island a repair depot has been established by the Harbour Trust, and three fire floats, with an aggregate capacity of 9,500 gallons per minute, are stationed there. Large graving docks are situated on Cockatoo Island and at Woolwich. Spectacle Island is used for the storage of explosives. Fort Denison, used formerly for defence purposes, is now a lighthouse and fog signal station.

An account of the dock accommodation provided in Sydney Harbour is shown on a later page.

The number and tonnage of vessels which entered Sydney Harbour during the last five years, as recorded by the Harbour Trust, are shown below. The figures differ from those in the table on page 74, as they include vessels engaged in the coastal trade of the State, also vessels which do not report to the Customs authorities on return from a journey to Newcastle for bunker coal:—

Year ended 30th June.	Coastal (State).		Oversea and Interstate.		Total Trade.	
	Number.	Net Tonnage.	Number.	Net Tonnage.	Number.	Net Tonnage.
1925	5,610	1,605,920	2,482	7,525,755	8,092	9,131,675
1926	5,289	1,484,157	2,363	7,233,613	7,652	8,717,770
1927	5,740	1,667,968	2,626	7,879,005	8,366	9,546,973
1928	5,261	1,612,012	2,539	7,600,283	7,800	9,212,295
1929	4,564	1,352,945	2,498	7,707,208	7,062	9,060,153

The aggregate tonnage of vessels which entered the port of Sydney during the year 1926-27 was the largest on record. In the following year there was a decrease of 334,678 tons, due mainly to a smaller wheat harvest and a decline in the coal trade. In 1928-29 the oversea trade improved, but there was a serious decline in the coastal trade as a result of continuance of adverse conditions in the coal-mining industry and industrial strife in the timber industry. The average net tonnage of the oversea and interstate steamers in 1928-29 was 3,085 tons, as compared with 2,476 in 1913.

Very few sailing vessels are engaged in the trade of New South Wales. The number which entered Sydney Harbour in 1928-29 was only 6 with a tonnage of 6,868, as compared with 242 vessels and a tonnage of 124,328 in 1920-21. On the other hand the number of motor ships is increasing. The oversea and interstate vessels included 86 motor vessels, 303,695 tons (net) in 1925-26, and 210 of an aggregate net tonnage of 735,136 in 1928-29. The steamers included 390 oil-burning vessels with a tonnage of 2,065,749 tons (net).

The following statement shows the latest tonnage figures, including coastwise, for the principal ports of Australasia and Great Britain. The figures include tonnage which arrived at the respective ports, although not recorded by the Customs Department.

Port.	Arrivals incl. Coastwise— Net Tonnage.	Port.	Arrivals incl. Coastwise— Net Tonnage.
<i>Australia—</i>		<i>England—</i>	
Sydney	9,060,153	London	27,741,734
Melbourne	6,883,317	Liverpool (including Birkenhead)	16,342,615
Port Adelaide	4,509,470	Cardiff	8,754,977
Newcastle	3,714,670	Newcastle and Shields	10,236,924
Brisbane	3,407,525	Southampton	12,112,339
Fremantle	3,387,758	Hull	5,813,903
Townsville	1,068,551	Plymouth	6,971,539
Port Kembla	834,739		
Hobart	742,378		
Albany	570,980		
<i>New Zealand—</i>		<i>Scotland—</i>	
Wellington	3,477,149	Glasgow	6,053,733
Auckland	2,401,911	Greenock	2,671,703
Lyttelton	1,900,483	Leith	2,143,330

Up to 30th June, 1928, the revenues collected by the Sydney Harbour Trust were paid into the Consolidated Revenue Fund of the State. This arrangement was altered as from 1st July, 1928, when the accounts of the Harbour Trust were separated from the Consolidated Revenue Account, and the receipts are paid now into the Sydney Harbour Trust Fund. A renewals fund has been created to meet the cost of renewals and reconstruction of wasting assets and the Trust is required to contribute a proportionate share of the sinking fund established under the financial agreement between the Commonwealth and the States. The net profits are payable into a reserve fund to meet losses and for the reduction of rates and charges.

The revenue and expenditure by the Sydney Harbour Trust during each of the last five years are shown in the following statement, also the capital

debt at the end of each year. Owing to the changes in the method of keeping the accounts, as described above, the figures for the year 1928-29 are not strictly comparable with those of earlier years. Moreover, the capital debt at 30th June, 1929, as stated, is subject to adjustment upon the completion of a review by a committee which is determining the capital indebtedness of the Trust:—

Year ended 30th June.	Capital Debt.	Revenue.	Expenditure.				Surplus.
			Working Expenses.	Renewals and Re- placements.	Interest.	Total Ex- penditure.	
	£	£	£	£	£	£	£
1925	10,644,468	970,402	247,842	35,198	526,944	809,984	160,418
1926	10,956,555	1,015,878	258,117	39,985	554,446	852,548	163,330
1927	11,299,989	1,083,855	273,412	46,620	569,884	889,916	193,939
1928	11,590,431	1,078,293	308,615	35,385	584,815	928,815	149,478
1929	11,913,738	1,103,598	330,130	38,907	614,067*	983,104	120,494

* Includes Sinking Fund, £30,067.

During the year 1928-29, the ratio of working expenses to the revenue was 29.9 per cent. After deducting interest and sinking fund charges and the expenditure on renewals and replacements, there was a surplus on the year's transactions of £120,948.

The principal sources of revenue in 1928-29 were wharfage and transhipment rates, which amounted to £671,565, and rents from properties £308,174.

Newcastle Harbour.

Newcastle Harbour (Port Hunter) is the second port of New South Wales and the fourth port of Australia in regard to the volume of its shipping trade. The harbour lies in the course of the Hunter River, and its limits are not defined, but an area of about 990 acres is enclosed by about 8 miles of coast-line, extending on the western side as far as Port Waratah, omitting Throsby Creek, and on the eastern side to a point due east of the southern end of Moscheto Island. The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width at the entrance is 19 chains, and the navigable channel is 350 feet wide. The minimum depth is 23 feet 6 inches at low water ordinary spring tide, but vessels which draw 27 feet can enter at high water. Works are in progress with the object of increasing the depth at the entrance to 32 feet.

The harbour is landlocked sufficiently to render it safe for vessels in all kinds of weather, and breakwaters have been erected to improve the entrance and to prevent the ingress of sand from the ocean beaches. Newcastle is primarily a coal loading port, and the proximity of the coalfields has led to the establishment of important industries, including iron and steel works, in the district, so that trade in other commodities is likely to develop steadily. Arrangements have been made for the shipment of butter produced in the northern dairying districts. Frozen meat also may be dispatched, and a wharf is available for timber.

Wharfage accommodation to the extent of 23,812 feet is provided; 10,138 feet are used for the shipment of coal, 7,900 feet for general cargo, 2,428 feet for Government purposes, and 3,346 feet are leased. There are 98 mooring dolphins and jetties for vessels awaiting cargo. The general cargo wharves are connected with the main railway system. The railway extends along the coal wharves also.

The shipping entered during 1928-29 included coastal, 2,158 vessels, 922,844 tons; interstate, 855 vessels, 1,302,268 tons; and oversea, 446 vessels, 1,489,558 tons; total, 3,459 vessels, 3,714,670 tons. In 1927-28 the total was 4,569,813 tons.

RIVER TRAFFIC.

New South Wales has few inland waterways and although there is some river traffic its extent is not recorded. The coastal rivers especially in the northern districts are navigable for some distance by sea-going vessels and trade is carried further inland by means of small steamers and launches.

The use of the inland rivers for navigation depends mainly on seasonal conditions. Normally, the Murray River may be used by flat-bottomed barges and other small craft. Traffic on the Darling is intermittent. At certain times in seasons when the rainfall is sufficient to maintain a fair volume of water, barges carry wool and other products for a considerable distance.

A scheme is in progress for the construction of storage dams, weirs and locks on the Murray, Murrumbidgee and Darling Rivers. The works are being constructed under an agreement between the Governments of the Commonwealth and of the States of New South Wales, Victoria, and South Australia, which provides that except in times of unusual drought, sufficient water must be maintained in the weirs and locks for navigation by vessels drawing 5 feet of water.

At 30th June, 1929, eight locks had been completed and were in operation. The expenditure at that date amounted to £7,118,513. It has been estimated that £3,416,339 would be required to complete the project, including the Hume Reservoir, estimated to cost £5,872,637. Further details are shown in the chapter entitled Water Conservation and Irrigation.

HARBOUR FERRY SERVICES.

In the ports of Sydney and Newcastle, ferry services have been established by private companies to transport passengers, vehicles, etc., across the harbours, the conditions under which the services are conducted being regulated by license. At 30th June, 1929, sixty-five boats licensed to carry 46,631 passengers were in service, and 1,147 persons were employed. Approximately 49,500,000 passengers were carried during the year 1928-29; and in accidents no passengers were killed and 20 passengers and 111 employees were injured; the total revenue amounted to £833,669, and the expenditure to £638,000.

These ferries are distinct from those to which reference is made in the chapter entitled Local Government, which are maintained by the central Government or by municipalities or shires for the free transport of traffic across rivers where bridges have not been erected.

RATES OF FREIGHT.

Freight charges represent an important factor in the cost of marketing in oversea countries the products of the industries of New South Wales. Generally the rates charged by British lines of steamships are determined by organisations of shipowners.

An association of shipowners and shippers, known as the Australian Oversea Transport Association, was formed in June, 1929, with the object of organising on an economical basis the shipping services to and from Australia. A series of agreements is being arranged in regard to rates of freight and other conditions affecting the shipment of cargoes by vessels engaged regularly in the trade between Australia and Europe.

During the war period, rates of freight rose to an extraordinary level. The maximum for most commodities was reached in 1919, then the over-supply of shipping led to a general decline and the movement became steadily downward. The decrease is especially noticeable in regard to classes of cargo carried by tramp steamers, *e.g.*, wheat, for which freight was charged at £7 10s. per ton in 1920, and in the following year space was obtained at the rate of £2 6s. 8d. per ton. The decline continued until 1923, then it slackened. During the last three years the rates for wheat have varied according to the quantity available for export. The rates for other commodities have been fairly steady, though some showed a tendency to decline in 1927.

The following statement shows the range of rates for the carriage of various commodities by steamer from Sydney to London in the last three years, as compared with the rates in 1911 and in 1920-21:—

Article.			1911.	1920-21.	1925-26.	1927-28.	1928-29.
Butter	...	box 56 lb.	2s. to 2s. 6d.	6s.	4s. 6d.	4s.	4s.
Copra	...	...	ton	40s.	225s. to 120s.	61s. 3d.	61s. 3d.
Hides	...	...	lb.	40s. to 52s. 6d.†	1½d. to 1d.	¾d.	¾d.
Leather	...	...	ton	60s.	270s. to 244s.	137s. 9d.	137s. 9d.
Mutton—Frozen	...	lb.	¾d. to 1¼d.	1½d.	1¾d.	1d.	1d.
Rabbits—Preserved	...	ton	50s.	120s. to 105s.	70s.	63s.	63s.
Tallow	...	...	40s. to 42s. 6d.	180s. to 170s.	78s. 9d.	70s. 9d.	70s. 9d.
Wheat	...	...	17s. 6d. to 30s.	120s. to 46s. 8d.	40s. to 20s.	37s. 6d. to 25s.	20s. to 40s.
Wool—Greasy	...	lb.	¾d. to 1¼d.	1¼d.‡	1¼d.‡	1¼d.‡	1¼d.‡
Measurement Goods—40 cub. ft.	...	...	25s. to 45s.	120s. to 105s.	70s.	63s.	63s.
Timber	...	100 sup. ft.	6s.	35s. to 22s.	11s.	11s.	11s.

† Per ton. ‡ Plus 5% primage, less 10% rebate.

Wool is carried direct to Continental ports in Europe at the same rates as to London, but higher rates are charged if it is taken to London and transhipped there to the Continent. The rate for wool from Sydney to Japan in 1928-29 was 1¼d. per lb., less 10 per cent. rebate.

PORT CHARGES.

The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Lighthouses Act and the Federal Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Acts. The various charges are shown in detail in the Statistical Register of New South Wales 1928-29, and only a brief reference to the rates collected by each authority is made in this volume.

The gross collections by the State authorities, *i.e.*, the Department of Navigation of New South Wales and the Sydney Harbour Trust, during the last three years are shown below in comparison with those during the years 1910-11 and 1920-21:—

Charges.	Year ended 30th June.				
	1911.	1921.	1927.	1928.	1929.
	£	£	£	£	£
Pilotage	43,856	74,733	75,014	71,359	70,029
Harbour Removal Fees	7,306	10,647	6,109	4,820	4,718
Harbour and Light Rates	41,331	49,551	52,716	52,909	50,855
Navigation Department Fees, etc. ...	9,256	10,839	1,641	1,473	2,951
Harbour and Tonnage Rates (Out-ports)	6,792	72,865	182,101	180,265	157,517
Sydney Harbour Trust—					
Wharfage and Tonnage Rates ...	228,379	475,230	733,035	724,224	724,477
Rents of Wharves, Jetties, etc. ...	77,930	188,473	190,952	196,534	201,786
Rents of other premises	46,178	71,666	103,728	105,165	106,388
Miscellaneous	22,273	61,629	59,617	56,767	70,947
Total	483,301	1,015,633	1,404,913	1,393,516	1,389,668

The light-houses and light dues collected in Australia by the Commonwealth Government during the year ended 30th June, 1929, amounted to £196,100, and receipts under the Federal Navigation Act to £14,062.

Charges levied on Ships.

The principal charges imposed under Federal legislation are light dues and fees for the survey of ships, the adjustment of compasses, etc.

The Commonwealth light dues must be paid in respect of every ship entering a port in Australia. The rate, payable quarterly, is 9d. per ton (net), and payment at one port covers all Australian ports which the vessel may enter during the ensuing period of three months. Vessels calling at only one port in Australia *en route* to an oversea destination are charged at the rate of 5d. per ton (net). If a vessel is laid up for a period of at least one month, a proportionate remission of the light dues may be made.

The Federal Navigation Act prescribes that sea-going vessels must be surveyed at least once in every twelve months, and a vessel may not go to sea without a certificate of survey or equipment issued by the Federal Department of Navigation, or other approved certificate. The fees for survey and for compass adjustment are collected by the Federal Department of Navigation and paid to licensed marine surveyors and compass adjusters. The prescribed survey fees for a twelve-months' certificate in respect of steamers, motor ships, and of sailing ships (15 tons and over) with auxiliary engines, range from £4 where the gross registered tonnage does not exceed 100 tons to £13 10s. if the gross tonnage is between 2,100 and 2,400 tons; and a charge is made for each additional 300 tons at the rate of 30s. for passenger ships and £1 for cargo ships. For ships under 1,800 tons propelled by sails only, the fee ranges from £3 to £6 with 15s. for each additional 300 tons. The survey fees for dry docking certificates range from £1 to £4, and double rates are charged for vessels without certificates of survey. The fees for the adjustment of a ship's compasses range from £2 2s. to £7 7s.

The certification of ships trading exclusively within the limits of the State of New South Wales is a function of the State Department of Navigation. The fees payable to marine surveyors for surveys in respect of a twelve months' certificate range from £2 to £8 where the tonnage does not exceed 600 tons, with £2 for each additional 300 tons up to a maximum of £20.

Pilotage rates are charged by the Navigation Department of New South Wales in respect of every ship entering or clearing a port in the State. Vessels engaged in the whaling trade and vessels in the charge of a master possessing a pilotage certificate are exempt unless a pilot is actually employed. The rate is 1½d. per ton (net), on arrival and on departure for ships (a) in ballast, (b) arriving solely for refitting or docking, (c) resorting to port solely on pleasure or for orders, repairs, provisions or coal, or through stress of weather or otherwise in distress. The rate for other ships is 2½d. per ton on arrival and on departure. The maximum rate is £25 and the minimum is £3 at Sydney or Newcastle, and £1 10s. at other ports.

Vessels being removed from one place to another in a port where there is a pilot establishment are charged harbour removal dues unless the master possesses a pilotage certificate. The rate for a removal varies from £1 to £4 10s. according to the size of the vessel; half rates are charged after the third removal.

The harbour and light rate imposed by the State Government is payable half-yearly at the rate of 4d. per ton (net). The exemptions are vessels engaged in the whaling trade, vessels entering port for refitting or docking, for pleasure, orders, repairs, provisions or coal, or in distress, and those in respect of which the rate has been paid at any port in the State during the preceding six months.

Tonnage rates are payable in respect of vessels of 240 tons and over while berthed at a wharf—the charge is $\frac{3}{16}$ d. per ton (gross) for each period of six hours. Vessels under 240 tons are liable for berthing charges, the daily rate in Sydney Harbour being £1 for vessels engaged in vehicular traffic, 1s. to 10s., according to passenger capacity, for vessels engaged in picnic, excursion or passenger traffic, and 2s. 6d. to 10s. for other vessels. Berthing charges in other ports are calculated at the rate of 2s. 6d. for each period of six hours. Where wharves are leased to shipping companies the tonnage rates and berthing charges in respect to their vessels are not charged as they accrue, but are accounted for in rent.

Moorings may be laid down in Sydney Harbour with the approval of the Harbour Trust Commissioners. An annual license fee of £5 is charged for moorings owned and used by shipping companies; and from 2s. 6d. to 10s. for those used in connection with docking premises or for small vessels. In other ports vessels are allowed to occupy Government mooring buoys for a period of two clear days free of charge, thereafter buoyage rates ranging from £1 to £3 per day are imposed. Exemption from buoyage rates may be granted by the officer in charge of a port if a vessel is detained through stress of weather or when an unforeseen circumstance renders it desirable that the vessel should occupy a Government buoy.

Tugs, ferry boats, hulks, and launches plying for hire in Sydney Harbour must obtain a license, for which the charge is £1 per annum. For water boats supplying water to shipping in the port the annual license fee is £5; for lighters, 2s. per ton up to 200 tons and 1s. for each additional ton, the minimum fee being £2; and for watermen 5s. In other ports the annual

license fees for ballast lighters and for watermen are £1. and 10s. respectively. The charge for water supplied to a vessel by the Sydney Harbour Trust is 2s. per 1,000 gallons if the water is taken through hoses supplied by the Commissioners; in other cases the rate is 1s. 6d. per 1,000 gallons.

Harbour and Wharfage Rates.

In addition to the foregoing charges levied on the vessels and payable by their owners, harbour or wharfage rates payable by the owners of the goods are imposed on the cargoes landed or shipped in the ports. Goods transhipped are subject to transhipment rates and not to inward or outward wharfage or harbour rates. Passengers' luggage is exempt. The schedules of rates for the port of Sydney are contained in the Sydney Harbour Trust regulations, and for other ports they are proclaimed under the Harbour and Tonnage Rates Act.

In Sydney Harbour all classes of goods are subject to inward or to transhipment rates. Unless it is otherwise specified in the schedule, the inward rate is 4s. per ton assessed by weight or by measurement (40 cubic feet) at the option of the Commissioners. There are a number of special inward rates—some apply only to Australian products arriving from another port in the Commonwealth, *e.g.*, 2s. 6d. per ton of dairy produce, fresh fish, poultry, iron or steel, fencing wire, copper or stone; 2s. 6d. per 630 superficial feet of rough or sawn timber. The inward rate on coal is 1s. per ton, and on liquid fuel 2s. per ton, but only the transhipment rate—6d. per ton—is levied when these commodities are shipped in Sydney for consumption as bunker fuel by the loading vessel. Kerosene in the case is charged at the rate of 2½d. per case; green fruit—Australian 1½d. and other 2d. per package; vegetables, 1½d. per case; timber (other than Australian), 3s. 6d. per 630 super feet; copra, 3s. per ton; guano, 1s. 3d. per ton; sugar for refining, 2s. per ton; wool, 9d. per bale. The general rate on transhipments is 6d. per ton, but there are a number of special rates ranging down to ¾d. per ton, which is payable on firewood.

The schedule of outward rates in operation in Sydney Harbour in June, 1929, contained thirty-two items, including the principal primary products, and all other goods are free. The rate in respect of coal is 6d. per ton; wheat and coke 9d. per ton; wool 9d. per bale; ore 4½d. per ton; other commodities subject to outward rate, including pastoral and dairy products, flour and mill offals, cement, copper, tin and fertilisers, 1s. 6d. per ton. Outward rates are not chargeable on consignments under 2 tons.

In ports other than Sydney there are separate schedules for coastwise goods. The inward general rate for coastwise goods arriving at these ports is 2s. per ton, and special rates include coal and firewood 6d. per ton; coke and fertilisers 1s. per ton; green fruit 2d. per package; vegetables 1d. per case; ore 4½d. per ton; ore products 9d. per ton; inflammable liquids 2d. per case; maize and oats 2d. per bag. The outward rate on coastwise goods is 1s. per ton, unless otherwise specified; coal and firewood are rated at 3d. per ton; coke 4d. per ton; ore and ore products 4½d. per ton; timber—sawn or rough—1s. 3d. per 630 super feet. Transhipment rates are half the inward rates.

The general rate imposed in respect of interstate and oversea goods arriving at ports outside Sydney is 3s. 4d. per ton by weight or measurement. In most cases the special rates are the same as those levied in Sydney, some of the exceptions being coal 6d. per ton, kerosene 2d. per case, liquid fuel 3s. per ton, ore 4½d. per ton, ore products 9d. per ton, wool 6d. per bale. The schedule of outward rates on interstate and oversea goods contains 24 items including coal and firewood 3d. per ton, coke 4d. per ton, rough or sawn

timber 1s. per 630 super feet, and wool 6d. per bale. The rate is 1s. per ton by weight or by measurement on goods for which a special rate is not fixed. The transshipment rates on interstate and oversea goods are in most cases similar to those imposed in Sydney.

Storage Charges.

In order to avoid congestion on the wharves in Sydney Harbour, storage charges are imposed on imported goods landed on a wharf if they are not removed within six days after the final discharge of the vessel, and on goods placed on a wharf for export which are not removed within 48 hours. The charges are at a daily rate of 4d. per ton during the first week, 5d. during the second, 6d. during the third week and 7d. thereafter.

In other ports storage charges are payable on goods left on a wharf for more than 48 hours at a daily rate of 2d., 3d., and 4d. per ton for the first, second, and third week respectively, and 6d. per ton thereafter.

Storage charges are imposed on timber after the first 48 hours at the daily rate of 1d. per ton for the first four days, and thereafter at 3d. per ton in Sydney Harbour, and at 2d. per ton in other ports.

In Newcastle Harbour the storage charge on wool and wheat is 1d. per ton per day after the first two days.

In computing storage charges in Sydney Harbour, Sundays and holidays are not included.

SHIPPING REGISTERS.

Shipping in New South Wales is registered in accordance with the Merchant Shipping Act of the Imperial Parliament, under sections which apply to the United Kingdom and to all British dominions. The Act prescribes that all British vessels engaged in trade must be registered, except those under 15 tons burthen employed in the coasting trade of the part of the British Empire in which the owners reside. Ships not legally registered are not entitled to recognition as British ships and are not permitted to proceed to sea. Although the registration of vessels under 15 tons is not compulsory, many small vessels are registered at the request of the owners, as registration facilitates the transaction of business for the purpose of sale or mortgage. The flag for merchant ships registered in Australia is the red ensign usually flown by British merchant vessels, defaced with a white seven-pointed star indicating the six federated States of Australia and the territories of the Commonwealth and the five smaller white stars representing the Southern Cross.

In New South Wales shipping registers are kept at the ports of Sydney and Newcastle. The following statement shows particulars regarding the shipping on the registers, as at 30th June, 1929:—

Tonnage Class.	Steam.		Motor.		Sailing.		Total.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Under 50 tons	240	5,365	242	2,506	203	2,777	685	10,648
50 and under 500 ...	197	30,581	2	355	70	10,952	269	41,888
500 „ „ 1,000 ...	18	12,424	1	516	8	6,413	27	19,353
1,000 „ „ 2,000 ...	8	12,910	...	...	3	3,727	11	16,637
2,000 and over	7	19,014	...	...	...	...	7	19,014
Total	470	80,294	245	3,377	284	23,869	999	107,540

Changes in respect of the registration in consequence of sales show that 49 vessels, with an aggregate tonnage of 7,389 tons (net), were sold during the year 1928-29. Forty-six of an aggregate tonnage of 6,205 tons were sold to British subjects, and the transactions did not necessarily involve removal from the registers.

Excluding yachts, launches, and boats, twelve vessels, valued at £208,732, were imported into New South Wales during 1928-29, viz., nine valued at £200,448 from the United Kingdom, one valued at £1,250 from the British Solomon Islands, and two valued at £7,025 from New Zealand. Six vessels, of a total value of £41,750 were exported, including one built in Australia, which was sent to New Caledonia. Three of the vessels built elsewhere were exported to New Zealand, one to New Caledonia and one to the United States.

SHIPBUILDING AND REPAIRING.

Accommodation for building, fitting, and repairing ships, has been provided by State and private enterprise at Sydney and Newcastle, and at four other ports in New South Wales.

In Sydney Harbour there are four large graving docks, five floating docks, and seven patent slips. Two graving docks, the Fitzroy and the Sutherland, situated on Cockatoo Island, were under the control of the Government of New South Wales until February, 1913, when they were transferred to the Commonwealth. They are controlled now by the Australian Commonwealth Shipping Board. The Sutherland Dock is 720 feet long, and can accommodate a vessel with a breadth of 88 feet, and a draught of 30 feet. The Fitzroy Dock has an effective length of 490 feet, and its breadth is 45 feet. It can take vessels drawing 18 feet 3 inches. At Cockatoo Island there are also two patent slips, where vessels drawing 9 feet and 4 feet respectively may be slipped. The vessels docked at the Cockatoo Island docks during the year ended 30th June, 1929, numbered 75, including 43 warships; their gross tonnage was 161,107 tons. The vessels slipped numbered 38, with a gross tonnage of 1,254 tons.

A private company, Mort's Dock and Engineering Company, Limited, owns two graving docks in Sydney Harbour, four floating docks and four patent slips. The Woolwich Dock is 850 feet long, and at high tide can take vessels drawing 28 feet; Mort's Dock is 640 feet long, and vessels drawing 16½ feet may be floated into it. The largest of the slips is 270 feet long; it can take a vessel weighing 1,600 tons gross, drawing 11 feet forward and 16 feet aft. The works of the Mort's Dock and Engineering Company are equipped with plant for shipbuilding, as well as for all classes of repairs.

There is a smaller dock, under private ownership, with a lifting power of 300 tons, and the State Government maintains a slip with a lifting capacity of 100 tons.

At Newcastle there are two patent slips attached to the State Government Dockyard at Walsh Island, and three which are privately owned. Of the latter, the largest is 200 feet long and 40 feet wide; it can take vessels which weigh 800 tons, and draw 8 feet forward and 12 feet aft.

The works at Walsh Island were established on a site which was originally a sandspit, and had been built up by dredging from the bed of the Hunter River. In 1913, after the Cockatoo Dockyard had been transferred to the Federal Government, workshops were erected at Walsh Island for the construction and repair of Government dredges and other vessels. Subsequently

the establishment was extended, and provision was made for the construction of merchant ships and ferry steamers, and for other classes of engineering and iron work. The patent slips are 292 feet in length; one has a lifting power of 900 tons and the other 400 tons. During the year ended 30th June, 1929, forty-nine vessels, with a gross tonnage of 12,947 tons, were slipped at Walsh Island.

The Government of New South Wales is constructing a large floating dock at Walsh Island. The Commonwealth has agreed to contribute the sum of £135,000 towards the cost, which is estimated at £410,000.

Graving docks under the control of the State Government are maintained at the ports of the Tweed, Richmond, Clarence, and Manning Rivers to meet the requirements of vessels engaged in the coastal trade. The largest, at Richmond River, is 214 feet long and 45 feet wide; it can accommodate a vessel with a draught of 10 feet. Twenty-three vessels with a gross tonnage of 1,878 tons were docked at these ports during the year 1928-29.

During the last few years only a few small vessels have been built in New South Wales, the number in 1928-29 being six, viz, one wooden sailing vessel 15 tons and five motor vessels 59 tons.

SEAMEN.

Matters relating to the employment of seamen are subject to control by the Commonwealth Government in terms of the Federal Navigation Act. Provision is made for the regulation of the methods of engagement and discharge, the form of agreement, rating, the ship's complement, discipline, hygiene, and accommodation. Mercantile Marine offices were established in March, 1922, to undertake functions performed hitherto by State shipping offices at Sydney and Newcastle, where engagements and discharges are registered.

The following statement shows the number of transactions at the offices during the last five years:—

Year ended 30th June.	Engagements registered.			Discharges registered.			Licenses to ship.		
	Sydney.	New-castle.	Total.	Sydney.	New-castle.	Total.	Sydney.	New-castle.	Total.
1925	24,148	3,581	27,729	25,140	3,445	28,585	964	305	1,269
1926	28,356	3,658	32,014	27,894	3,390	31,284	1,545	250	1,795
1927	23,921	4,152	28,073	24,064	4,099	28,163	874	211	1,085
1928	22,389	3,772	26,161	23,273	3,874	27,147	804	142	946
1929	18,195	2,091	20,286	18,195	2,138	20,333	579	63	642

The rates of wages, hours of labour, and conditions under which crews work on vessels engaged in the interstate and coastal trade of Australia are fixed by awards and agreements under the Commonwealth Conciliation and Arbitration Act. The rates for seamen were assessed on a labourer's basic wage* and an additional sum of £2 per month for skill.

* See Chapter relating to Wages.

The monthly rates payable to officers and engineers vary according to the size of the vessels on which they are engaged. The rates ruling in December, 1929, were as follow:—

Occupation.				Rates of Wages per month.						
				£	s.	d.	£	s.	d.	
Officers—	Chief	...	...	22	13	0	to	36	7	6
	Second	...	...	20	13	0	„	32	7	6
	Third	...	...	21	13	0	„	27	17	6
	Junior	...	...	£20 13s. 0d.						
Engineers—	Chief	...	...	32	2	6	to	66	7	6
	Second	...	...	26	17	6	„	41	15	6
	Third	...	...	24	2	6	„	33	7	6
	Fourth	...	...	21	3	0	„	28	14	6
Firemen		...	...	£19 0s. 0d.						
Trimmers		...	...	£17 0s. 0d.						
Seamen—Steamers		...	...	£17 0s. 0d.						
Cooks		...	...	14	1	0	to	23	1	0
Stewards		...	...	15	10	0	„	22	0	0
Stewardesses		...	...	10	12	6	„	11	15	0

Except where provided specifically in the awards and agreements, the ordinary hours of work for seamen are eight per day, and overtime must be paid for time worked in excess of eight hours. Manning conditions are regulated by committees representing the shipowners and the unions.

Compensation to seamen is provided by a Federal law, the Seamen's Compensation Act, 1911, which applies to ships in the service of the Commonwealth (exclusive of naval and military service), and to ships trading with Australia, or engaged in any occupation in Australian waters, or in trade and commerce with other countries or among the States. The schedules of the Act indicate the amount of compensation payable, in case of death or total or partial incapacity resulting from personal injury by accident to seamen in the course of their employment. Methods of procedure for the recovery of compensation are prescribed by regulations under the Act.

Seamen employed on New South Wales ships, *i.e.*, ships registered in New South Wales, or owned or chartered by the Government or by a person or body corporate whose place of business is in the State, may claim compensation under the Workers' Compensation Act of New South Wales, if they agree not to proceed under the Federal law.

SAFETY OF LIFE AT SEA.

The navigation laws contain stringent provisions designed to prevent unseaworthy ships from proceeding to sea, and to ensure that all vessels are manned by competent crews, that life-saving appliances are carried, and that special arrangements are made to safeguard dangerous cargoes. Regulations have been framed for the prevention of collisions, also rules regarding the lights and signals to be used.

On account of the regularity of the coast of New South Wales and the absence of islands, navigation in the seaboard waters is usually safe. Along a coastline less than 700 miles in length there are 29 light-houses, and in the ports of Sydney, Newcastle, Port Kembla, and in many other shipping places, lighted beacons, leading lights, and other guides have been placed for the safety of harbour navigation. The lights on the sea coast are under the control of the Commonwealth.

Pilotage is a State service as the sections of the Navigation Act which authorise its transfer to Federal authority have not been brought into operation. A pilot must be engaged for every vessel entering or leaving a port of New South Wales unless the master holds a certificate of exemption. Such certificates may be granted to British subjects only, for use in respect of British ships registered in Australia or New Zealand and employed in the trade between ports in Australasia and the South Sea Islands, or engaged in whaling. The pilotage rates are shown on page 83.

Wrecks and shipping casualties which occur to British merchant shipping on or near the coast of New South Wales are investigated by Courts of Marine Inquiry.* The majority of wrecks reported are small coasters under 200 tons. The following statement shows the wrecks reported in each of the last five years. The figures relate to vessels with crews who were domiciled in New South Wales:—

Year ended 30th June.	British Vessels.				Total Tonnage (net).	Crews and Passen- gers.	Lives Lost.
	Steam.	Motor.	Sailing.	Total.			
1925	3	...	1	4	10,413	154	2
1926	3	...	...	3	2,606	150	1
1927	3	...	...	3	2,951	273	7
1928	6	...	1	7	2,322	206	45
1929	4	...	...	4	581	29	6

Lifeboat stations are maintained at Sydney and at Newcastle, and life-saving appliances are kept at certain places along the coast. The pilot vessels are fitted for rescue work, and steam tugs are subsidised for assisting vessels in distress.

The Royal Shipwreck Relief and Humane Society of New South Wales affords relief to distressed seamen and their dependents and to the crews and necessitous passengers wrecked in New South Wales waters. It is maintained by public subscription, without subsidy from the State. The relief given during the year 1928-29 amounted to £2,296.

* See chapter relating to Law Courts.

RAILWAYS AND TRAMWAYS.

It is an established policy in New South Wales that the railways shall be under the control of the State, although a few private lines have been constructed for local purposes.

The railways open for traffic at 30th June, 1929, included 5,940 miles of line vested in the Railway Commissioners of New South Wales; a line 5 miles long running from Liverpool to Holdsworthy which is owned by the Federal Government; 203 miles of border railways in the Riverina district owned by the State of Victoria; and 113 miles of private railways available for general traffic. The total length of these lines was 6,266 miles. There are also a number of private lines for special traffic used mainly for the transport of coal from the collieries. A 2-feet gauge railway 26 miles in length from the Main Southern line to Burrinjuck Dam was maintained by the Water Conservation and Irrigation Commission until February, 1929, when it was closed.

The length of tramways open for traffic at 30th June, 1929, was 213½ miles of which only 3 miles were privately owned.

These figures indicate the mileage of the routes covered by railways or tramways irrespective of the number of tracks laid thereon. Particulars relating to the length of State railways laid with one or more tracks are shown on page 94, and the track mileage of the tramways is stated on page 112.

STATE RAILWAYS AND TRAMWAYS.

The management of the State railways and tramways is entrusted to Railway Commissioners appointed by the Governor. It is proposed, however, to transfer the tramways to the control of trusts in the metropolitan and Newcastle districts and a bill to give effect to the proposal was introduced into Parliament in February, 1930.

There are three Commissioners, viz., the Chief Commissioner and two assistant Commissioners. They are appointed for a period of seven years, though the present occupant of the office of Chief Commissioner has been appointed for an additional period of about two years, being the unexpired portion of his predecessor's term. There are also four Area Commissioners, appointed by the Chief Commissioner, to supervise operations within areas allotted to them, their headquarters being in Sydney, Newcastle, Orange, and Goulburn respectively.

The railway and tramway property is vested in the Railway Commissioners as a body corporate; they conduct the services on existing lines and construct the new lines authorised by the Legislature. By-laws for the regulation of the services, including those by which rates of freight and fares are prescribed, must be approved by the Government before they become operative.

Up to 30th June, 1928, the Commissioners paid all receipts into consolidated revenue, and moneys to be expended on the services as well as funds for construction were appropriated annually by Parliament. This procedure was altered as from 1st July, 1928, when the railway and tramway accounts were separated from the Consolidated Revenue Fund in terms of the Government Railways Amendment Act, 1928, and the receipts, loan moneys for railway and tramway purposes, and fines and penalties recovered by the Commissioners are paid now into the Government Railways and

Tramways Fund. The Amending Act provided also for the establishment as from 1st July, 1929, of a renewals fund to meet Parliamentary appropriations for renewals, reconstruction and conversion of lines, buildings and other wasting assets. The Commissioners are required to transfer from revenue to the renewals fund an amount determined annually by the Governor after investigation by a Committee of Review. The fund will receive also any additional amounts appropriated by Parliament. The net profit in each year, as certified by the Auditor-General, is transferable to a reserve account to be available only to meet losses incurred in any year, and for the reduction of rates and fares.

The Committee of Review consists of the Auditor-General, the Chief Commissioner, the Under Secretary to the Treasury, and two additional members may be appointed by the Governor. The Committee will determine the capital debt of the railways and tramways as at 30th June, 1928, and the Commissioners must pay to the Treasurer such a proportion of the interest, sinking fund, and other charges in respect of the public debt as the capital debt so determined bears to the outstanding public debt. The Government will continue to raise loan moneys for railways and tramways, and interest and charges on moneys so provided since 30th June, 1928, are payable out of railway and tramway receipts.

The Railways and Tramways Fund shares proportionately in the benefits and obligations of the State under the financial agreement between the Commonwealth and the States, which is described in the chapter of the volume entitled "Public Finance," as if the fund had not been separated from the Consolidated Revenue Fund. For this reason contributions for sinking fund at the rate of 5s. per £100 of capital invested have been a charge against the revenue of the railways and tramways since 1st July, 1928.

The Commissioners are required to indemnify the State against claims arising in respect of an agreement with the Commonwealth for the construction of the Grafton-South Brisbane railway, and an agreement with Hoskins Iron and Steel Co. Ltd. for the construction of the Moss Vale to Port Kembla line, and any other agreement affecting the railways and tramways.

Provision is made in the amending Act of 1928 for annual contributions from State revenues to make good two-thirds of the loss incurred on country developmental railways, the amount of contribution not to exceed £800,000 in any year. This is offset to a considerable extent by additional charges against the receipts of the railways and tramways, *e.g.*, provision for sinking fund, superannuation, etc.

Proposals for the construction of new railway lines are submitted in the Legislative Assembly by the Minister for Railways and are investigated by the Parliamentary Standing Committee on Public Works, which consists of members of both Houses of Parliament. If the Assembly passes a resolution in favour of a proposal, a bill is introduced to sanction its construction. In terms of the Government Railways Amendment Act of 1928 the order of construction and the rate of progress of railway lines and works are determined by the Commissioners, and interest on lines under construction hitherto paid from the general revenue of the State is added to the capital cost.

The finances of the railways and tramways, as a Government business undertaking, and their relation to the revenue, expenditure, and public debt of the State, are discussed in the chapter of this volume entitled "Public Finance."

The following statement shows the mileage and cost of the railways and tramways administered by the Railway Commissioners, also the results of working during the last two years:—

Particulars.	1927-28.			1928-29.		
	Railways.	Tramways.	Total.	Railways.	Tramways.	Total.
Lines open for Traffic 30th June—	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Mileage	5,867	210	6,077	5,940	211	6,151
Cost of Construction and Equipment	£ 117,984,374	£ 11,609,078	£ 129,593,452	£ 124,329,422	£ 11,743,189	£ 136,072,611
Year ended 30th June—						
Earnings	19,029,512	4,556,561	23,586,073	19,615,616	4,457,890	24,073,506
Working Expenses	14,756,327	3,937,356	18,693,683	14,978,050	3,835,644	18,813,694
Balance after paying Working Expenses	4,273,185	619,205	4,892,390	4,637,566	622,246	5,259,812
Government Contribution for Developmental Lines ... ..	...	...	...	800,000	...	800,000
Balance available for Interest, etc.	4,273,185	619,205	4,892,390	5,437,566	622,246	6,059,812
Interest on Capital	5,882,452	591,397	6,473,849	6,150,000	600,000	6,750,000
Sinking Fund Charges ... ..	...	...	...	326,952	31,589	358,541
Total Interest, etc.	5,882,452	591,397	6,473,849	6,476,952	631,589	7,108,541
Deficit	1,609,267	(+) 27,808	1,581,459	1,039,386	9,343	1,048,729

+ Denotes surplus.

The capital cost of the railways and tramways open for traffic as at 30th June, 1929, amounted to £136,072,611. On the railways £124,329,422 had been spent, and in 1928-29 a contribution of £800,000 was paid from the general revenues of the State on account of non-paying developmental lines, nevertheless they showed a deficiency of £1,039,386 after paying interest and sinking fund charges. Operations on the tramways showed a deficit of £9,343.

RAILWAYS.

The particulars relating to State railways, as stated in this chapter, refer to the lines vested in the Railway Commissioners of New South Wales.

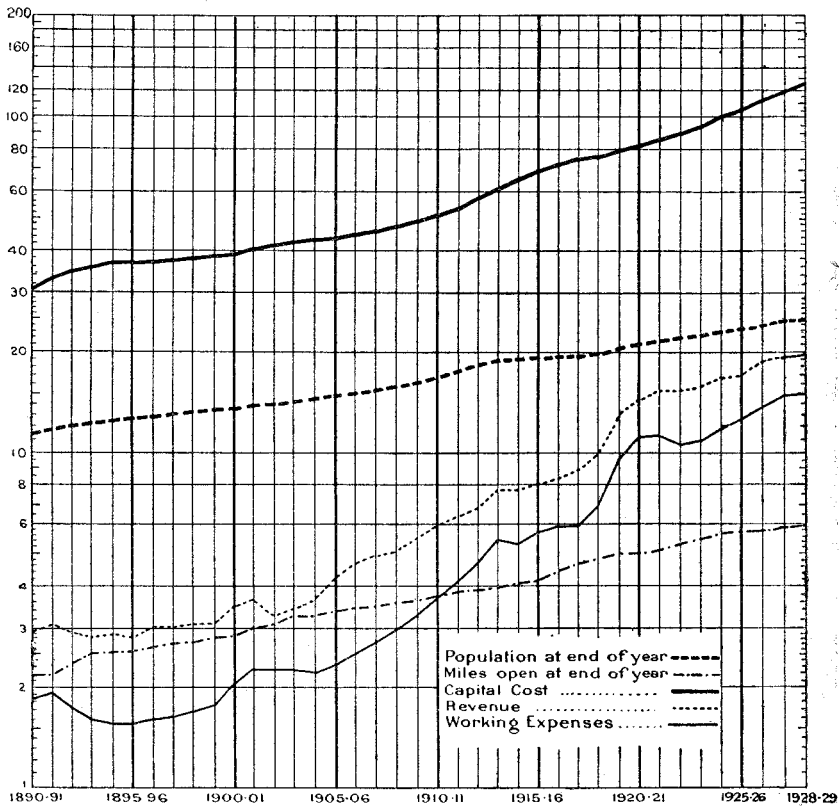
On 26th September, 1855, the first railway line, 14 miles in length, was opened for traffic between Sydney and Parramatta, and communication was established between Newcastle and East Maitland on 11th April, 1857. The subsequent growth of the State railways may be traced in the table given below. The Campbelltown to Camden, and Yass tramways are included in the figures relating to mileage as they are worked with the railways.

Period.	Opened during the period.	Total opened at end of period.	Year ended June.	Opened during the period.	Total opened at end of period.
	miles.	miles.		miles.	miles.
1855-64	143	143	1921	28	5,043
1865-74	260	403	1922	73	5,116
1875-84	1,215	1,618	1923	202	5,318
1885-94	883	2,501	1924	205	5,523
1895-1904	780	3,281	1925	183	5,656
1905-14	686	3,967	1926	86	5,742
1915-24	1,556	5,523	1927	8	5,750
1925-29*	417	5,940	1928	117	5,867
			1929	73	5,940

* Five years.

RAILWAYS, 1890-91 TO 1928-29.

Ratio Graph.



The numbers at the side of the graph represent £1,000,000 of capital cost, revenue and working expenses; 100,000 of population and 1,000 miles of railway.

The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

The total length of State lines open at 30th June, 1929, was 5,940 miles, distributed as follows:—Southern system, 2,049 miles; Western, 2,262 miles; and Northern, 1,629 miles; in addition there were 1,210 miles of sidings and crossovers.

The extension of the State railway system can be gauged fairly by comparing the population and area or territory to each mile of line open for traffic at different periods. In 1900 the average population per mile of line was 482, in 1925 it was only 402, and it has increased since to 415. The following statement shows the extension since 1860:—

Year.	Population to each Mile of Line open.	Area to each Mile of Line open.	Year.	Population to each Mile of Line open.	Area to each Mile of Line open.
	No.	sq. miles.		No.	sq. miles.
1860	4,979	4,434	1900	482	110
1865	2,861	2,170	1905	443	95
1870	1,471	916	1910	443	85
1875	1,360	710	1915	455	75
1880	881	366	1920	406	62
1885	548	179	1925	402	55
1890	523	142	1929	415	52
1895	501	123			

In addition to increasing the facilities by the construction of new lines, provision for the rapidly extending traffic is being made by the duplication of existing main lines, and by the electrification of the busy suburban railways. There are duplicate lines on the main western line as far as Orange; the southern line is duplicated as far as Cootamundra, the northern line as far as Branxton, and the South Coast line to Wollongong, except certain tunnels.

The following statement shows the length of line laid with one or more tracks at intervals since 30th June, 1901:—

At 30th June.	Single.	Double.	Triple.	Quadruple.	Sextuple.	Total.
	miles.	miles.	miles.	miles.	miles.	miles.
1901	2,678	158½	...	8½	...	2,845
1911	3,476½	276	...	8½	...	3,761
1921	4,428	572	7½	34½	1*	5,043
1926	5,083	606½	9½	42	1*	5,742
1927	5,090	609	8	39	4	5,750
1928	5,207	609	8	35	8	5,867
1929	5,278	611	8	35	8†	5,940

*Five tracks. †Includes 47 chains with eight tracks.

COST OF RAILWAY CONSTRUCTION.

The average cost per mile open for traffic of the Government railway lines, excluding expenditure for rolling stock, machinery, furniture, and workshops and stores, was £14,916. The average varies greatly according to the class of traffic for which the lines are constructed and the number of tracks laid, also by reason of the different physical characteristics of the wide expanse of territory through which they run.

The standard rails are 100 lb. in the metropolitan area, 80 lb. and 90 lb. on the main trunk lines, and 60 lb. on branch lines. Sleepers of Australian hardwood, measuring 8 ft. x 9 in. x 4½ in., are laid at the rate of eighteen per 40 feet of rail along the permanent-way.

The amount expended on rolling stock, etc., to 30th June, 1929, was £35,723,815, viz.:—Rolling stock, £25,024,552; White Bay power house—substations and plant, £3,484,570; machinery, £2,448,026; workshops, £2,386,850; Lithgow coal mines, £606,781; furniture, £10,036; and stores advance account, £1,763,000.

The total capital expenditure on lines open for traffic amounted to £124,329,422, an average of £20,930 per mile, as at 30th June, 1929. The growth of the capital expenditure may be seen in the following table:—

Period.	Capital expended during period.	Total capital expended to end of period.	Period.	Capital expended during period.	Total capital expended to end of period.
	£	£		£	£
1855-9	1,278,416	1,278,416	1905-9	5,324,149	47,612,666
1860-4	1,353,374	2,631,790	1910-4	13,652,203	61,264,869
1865-9	2,049,539	4,681,329	1915-9	15,336,722	76,601,591
1870-4	2,163,217	6,844,546	1920-4	16,753,576	93,355,167
1875-9	3,561,949	10,406,495	1925	6,268,049	99,623,216
1880-4	9,673,643	20,080,138	1926	5,614,452	105,237,668
1885-9	9,759,029	29,839,167	1927	7,551,481	112,789,149
1890-4	6,016,104	35,855,271	1928	5,195,225	117,984,374
1895-9	2,137,005	37,992,276	1929	6,345,048	124,329,422
1900-4	4,296,241	42,288,517			

Of £124,329,422 expended to 30th June, 1929, an amount of £659,930 was provided from consolidated revenue, leaving a balance of £123,669,492 raised by debentures and stock. The capital expended during 1928-29 included the following items.—Rolling stock, £3,127,586; electrification, £1,067,019; construction, £687,289.

EARNINGS AND EXPENSES.

As the carriage of goods and live stock constitutes the principal source of railway revenue, the earnings in each year are affected by the seasons experienced in the agricultural and pastoral districts. In unfavourable seasons the carriage of fodder and the transfer of live stock at reduced rates cause a diminution in the earnings, and at the same time an increase in the working expenses. The extension of the lines into sparsely settled districts also causes an increase in the proportion of working expenses to total earnings, as several of these lines earn little more than cost of maintenance.

The following table shows the gross earnings, working expenses, and the proportion of the expenditure to receipts, in various years from 1901 to 1929:—

Year ended 30th June.	Gross Earnings.	Working Expenses.		Year ended 30th June.	Gross Earnings.	Working Expenses.	
		Total.	Pro-portion to gross earnings.			Total.	Pro-portion to gross earnings.
	£	£	per cent.		£	£	per cent.
1901	3,573,779	2,118,201	59·3	1925	16,769,452	11,939,686	71·2
1911	6,042,205	3,691,061	61·1	1926	16,939,032	12,519,993	73·9
1921	14,267,205	11,032,678	77·3	1927	18,906,543	13,795,853	73·0
1922	15,213,019	11,116,302	73·1	1928	19,029,512	14,756,327	77·5
1923	15,221,333	10,649,974	70·0	1929	19,615,616	14,978,050	76·4
1924	15,616,577	10,917,491	69·9				

The working expenses during the year ended 30th June, 1929, represented 76·4 per cent. of the gross earnings. In 1907 the proportion was 53 per cent., the lowest since 1881, then it rose in nearly every year until it exceeded

77 per cent. in 1920-21. For a few years the proportion declined and was less than 70 per cent. in 1923-24. It was exceptionally high in the last two years. The increase was due mainly to advances in the salaries and wages of the staff, reduction of hours and other improvements in working conditions, and to increases in the prices of coal and other necessary materials. These caused expenses to rise, while the adverse weather conditions militated against a corresponding increase in earnings.

The following table shows the gross earnings, working expenses, and net earnings per train mile and per average mile open at intervals since 1901:—

Year ended 30th June.	Per train mile.			Per average mile open.		
	Gross Earnings.	Working Expenses.	Net Earnings.	Gross Earnings.	Working Expenses.	Net Earnings.
	d.	d.	d.	£	£	£
1901	79·68	47·23	32·45	1,268	751	517
1911	85·27	52·09	33·18	1,627	994	633
1921	150·23	116·17	34·06	2,843	2,198	645
1922	166·82	121·89	44·93	2,996	2,189	807
1923	168·39	117·82	50·57	2,929	2,049	880
1924	173·66	121·40	52·26	2,860	1,999	861
1925	172·70	122·96	49·74	3,010	2,143	867
1926	165·09	122·02	43·07	2,960	2,188	772
1927	172·36	125·77	46·59	3,290	2,401	889
1928	169·80	131·67	38·13	3,266	2,533	733
1929	171·93	131·28	40·65	3,323	2,537	786

The average earnings per mile open increased from £1,268 to £3,323 during the period under review, but the proportionate increase in working expenses was so much greater that the average net earnings increased by less than 53 per cent. The average net earnings per mile open in 1926-27 were the highest since the opening of the railways in 1855. They declined by 18 per cent. in the following year, then showed a slight recovery in 1928-29.

NET EARNINGS AND INTEREST ON CAPITAL.

The net revenue from railways for the year ended 30th June, 1929, was £4,637,566, while the capital expended on lines open for traffic to that date was £124,329,422, including £659,930 paid from consolidated revenue. The amount available to meet the interest charges on the interest-bearing capital invested represents a return of 3.82 per cent. The following table shows the net earnings and the interest returned on the capital expended on railways, including the cost of construction and equipment, for the year 1901 and subsequent periods:—

Year ended 30th June.	Net Earnings.	Interest returned on Capital.	Year ended 30th June.	Net Earnings.	Interest returned on Capital.
	£	per cent.		£	per cent.
1901	1,455,578	3·78	1925	4,829,766	5·01
1911	2,351,144	4·67	1926	4,419,039	4·30
1921	3,234,527	4·01	1927	5,110,690	4·69
1922	4,096,717	4·88	1928	4,273,185	3·70
1923	4,571,359	5·22	1929	4,637,566	3·82
1924	4,699,086	5·13			

State railways being regarded as a developmental agency in the settlement of the country rather than as a revenue-producing enterprise, freights and fares have not been raised sufficiently to cover the increases in cost of

maintenance and interest charges which occurred in recent years. Moreover the railway finances bear the burden of substantial concessions made for the direct benefit of primary and secondary industries. These include rebates from the ordinary rates charged for the transport of livestock and fodder, and concessions in respect of the carriage of raw materials and the products of certain manufacturing industries which are assisted for national reasons.

There was an appreciable increase in the return on capital cost in 1921-22 and 1922-23; then various reductions were made in freight and fares, and the ratio of earnings to cost declined again. Subsequently, in November, 1926, higher charges were made for the carriage of a number of commodities, and in December, 1927, passenger fares were increased.

NON-PAYING LINES.

Many of the railways of New South Wales have been constructed with the view of promoting settlement and developing the natural resources of the State rather than of meeting requirements already existing, and traffic over a number of lines is conducted at a loss. Even on portions of the main lines the earnings do not cover working expenses and interest on the capital cost, but most of the unprofitable lines are branch lines of comparatively recent construction.

Of the main lines, only the southern line returns a profit over its whole length; the western line from Nyngan to Bourke, the northern line from Tamworth to Wallangarra, the North Coast lines, and the South Coast line from Kiama to Nowra are worked at a loss.

The railway finances are being relieved of part of the losses incurred on country developmental lines by means of a contribution from public revenue, not exceeding £800,000 in any year.

Particulars relating to non-paying lines are shown below, mainly for the year ended 31st December, 1928:—

Line.	Length.	Capital Cost.	Interest and Sinking Fund.	Working Expenses.	Earnings.	Loss after providing for working expenses interest, and Sinking Fund.
Northern—						
Main Line—Tamworth to Wallangarra	m. c. 211 27½	£ 3,384,480	£ 177,525	£ 386,797	£ 523,290	£ 41,032
Branch lines	476 77½	2,536,134	133,027	211,502	218,227	126,302
Total Northern	688 24½	5,920,614	310,552	598,299	741,517	167,334
North Coast	522 67½	8,646,253	453,520	634,412	735,274	352,658
Southern—Branch lines	1,341 26½	9,541,891	487,922	749,290	690,268	546,944
South Coast—Kiama to Nowra	22 59½	405,451	21,267	36,007	24,635	32,639
Western—						
Main Line—Nyngan to Bourke	126 43½	767,128	40,238	87,855	57,527	70,566
Branch Lines	1,155 23½	8,347,353	437,840	764,317	765,433	436,724
Total Western	1,281 66¾	9,114,481	478,078	852,172	822,960	507,290
Suburban—Clyde to Carlingford	4 41½	65,926	3,458	23,092	8,898	17,712
Total specified lines	3,861 47	33,694,616	1,754,797	2,893,272	3,023,492	1,624,577

Similar data in calendar years are not available for all lines, the total deficiency on paying and non-paying lines being £1,609,267 in the year ended 30th June, 1928, and £1,839,386 in 1928-29.

DISTRIBUTION OF EARNINGS AND EXPENSES.

A statement of the various items of earnings and working expenses of all lines during each of the last five years is shown below:—

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
<i>Earnings.</i>	£	£	£	£	£
Passengers	6,186,368	6,311,690	6,643,337	6,998,147	7,238,329
Mails, parcels, horses, etc. ... £	755,725	789,539	830,208	853,365	886,387
Total Coaching ...	6,942,093	7,101,229	7,473,545	7,851,512	8,124,716
Refreshment-rooms	595,606	664,427	684,536	688,984	745,070
Goods—					
Merchandise	5,482,686	5,263,711	5,890,130	5,556,712	6,196,543
Wool	627,138	683,968	849,622	754,961	804,064
Livestock	1,155,272	1,366,844	1,563,973	1,645,305	1,315,552
Minerals	1,745,833	1,626,600	2,186,868	2,271,608	2,063,033
Total Goods... ..	£ 9,010,929	8,941,123	10,490,593	10,228,586	10,379,192
Rents	138,152	145,642	156,829	164,178	221,088
Miscellaneous	82,672	86,611	101,040	96,252	145,550
Total Earnings ... £	16,769,452	16,939,032	18,906,543	19,029,512	19,615,616
<i>Working Expenses.</i>					
Maintenance of way and works	2,176,435	2,001,724	2,146,257	2,573,142	2,534,283
Rolling stock—					
Maintenance	2,779,139	2,753,772	3,026,627	3,336,934	3,448,215
Locomotive power—					
Coal, etc.	997,746	1,087,203	1,227,169	1,174,478	1,151,235
Other	1,773,435	2,086,681	2,370,427	2,434,646	2,453,113
Other rolling stock	222,311	179,646	199,691	212,547	200,513
Transportation and traffic	3,121,001	3,391,092	3,733,225	3,877,254	3,853,223
General charges	309,994	407,342	463,078	497,543	503,424
Refreshment-rooms	532,219	606,960	617,469	623,458	728,811
Contribution to Superannua-					
tion Fund... ..	...	...	...	...	60,000
Other Expenses	27,406	5,573	11,910	26,325	45,233
Total Working Ex-					
penses	£ 11,939,686	12,519,993	13,795,853	14,756,327	14,978,050
Net Earnings	£ 4,829,766	4,419,039	5,110,690	4,273,185	4,637,566

During 1928-29 the earnings derived from the carriage of passengers represented 36.9 per cent. of the total; mails, parcels, etc., 4.5 per cent.; goods, 52.9 per cent.; and refreshment-rooms 3.8 per cent. The expenditure on locomotive power represented 24 per cent. of the working expenses; transportation and traffic, 26 per cent.; maintenance of rolling stock, 23 per cent.; and maintenance of way and works, 17 per cent.

COACHING AND GOODS TRAFFIC.

Goods traffic is the principal source of revenue, though the proportion of earnings from coaching is higher now than in the earlier years reviewed in the following table which shows the proportion of earnings from the coaching and goods traffic at intervals since 1901. In calculating the

percentages, earnings from refreshment-rooms and from miscellaneous sources and rents have been included, the greater part being classed with earnings from coaching traffic.

Year ended 30th June.	Proportion of Total Earnings.		Year ended 30th June.	Proportion of Total Earnings.	
	Coaching, etc.	Goods and Live-stock.		Coaching, etc.	Goods and Live-stock.
	per cent.	per cent.		per cent.	per cent.
1901	38·3	61·7	1925	46·1	53·9
1911	40·6	59·4	1926	47·1	52·9
1921	48·7	51·3	1927	44·4	55·6
1922	47·5	52·5	1928	46·1	53·9
1923	48·1	51·9	1929	46·9	53·1
1924	48·0	52·0			

The proportion of earnings from goods traffic varies with seasonal and other conditions which affect the production of wool, wheat, coal, etc. In 1926-27 it was greater than in any year since 1918-19. This was due partly to a bountiful season and partly to the fact that rates of freight were increased in November, 1926, while fares remained unaltered.

In 1927-28 and in the following year the volume of goods traffic diminished, while earnings from passenger traffic benefited by increases in fares which were imposed in December, 1927.

Coaching Traffic.

The following table shows the number of passenger journeys and the receipts from coaching traffic since 1901:—

Year ended 30th June.	Passenger Journeys.			Gross Earnings from Coaching Traffic.	Per head of Population.	
	Suburban.	Country.	Total.		Passenger Journeys.	Gross Earnings from Coach- ing Traffic.
	No.	No.	No.	£	No.	s. d.
1901	26,041,990	3,219,334	29,261,324	1,336,489	21·4	19 7
1911	54,103,048	6,816,580	60,919,628	2,385,725	37·2	29 2
1921	110,255,795	10,479,345	120,735,140	6,384,031	57·8	61 1
1922	110,921,845	10,377,016	121,298,861	6,636,529	57·0	62 4
1923	113,017,247	10,697,392	123,714,639	6,694,353	57·0	61 7
1924	117,356,316	10,744,868	128,101,184	6,797,888	58·0	61 6
1925	117,610,989	10,921,049	128,532,038	6,942,093	57·0	61 7
1926	119,824,985	10,900,596	130,725,581	7,101,229	56·9	61 10
1927	130,317,129	11,298,677	141,615,806	7,473,545	60·3	63 8
1928	136,796,171	11,250,710	148,046,881	7,851,512	61·7	65 5
1929	140,158,238	10,957,848	151,116,086	8,124,716	61·7	66 5

Suburban passenger traffic has increased to a greater extent than country traffic, and it yielded 42 per cent. of the total receipts from passengers in 1928-29, as compared with 35·6 per cent. in 1920-21. The increase has been greatest in the second-class suburban traffic, the number of first-class

suburban journeys having declined absolutely and relatively. In the aggregate second-class passengers paid £5,009,916, or 69 per cent., of the total receipts from passengers in 1928-29, and the first-class passengers £2,228,413 or 31 per cent. Corresponding ratios in 1920-21 were 65 per cent. and 35 per cent.

Particulars are shown below regarding the passenger traffic during the year ended 30th June, 1929, on suburban lines, *i.e.*, those within 34 miles of Sydney or Newcastle, and on country lines:—

Description.	Suburban Lines.			Country Lines.		
	First-class.	Second-class.	Total.	First-class.	Second-class.	Total.
Journeys—						
Ordinary Passengers ...	3,852,296	49,949,349	53,801,645	1,145,647	5,457,333	6,602,980
Season Ticket Holders...	10,448,108	40,852,309	51,300,417	1,451,689	1,890,283	3,341,972
Workmen's ...	...	35,056,176	35,056,176	...	1,012,896	1,012,896
Total Passenger Journeys	14,300,404	125,857,834	140,158,238	2,597,336	8,360,512	10,957,848
Miles Travelled ...	113,776,540	932,077,252	1,045,853,792	267,785,014	507,062,434	774,847,448
Average Mileage per Passenger ...	7·96	7·41	7·46	103·10	60·65	70·71
Amount Received from Passengers ... £	360,264	2,665,755	3,026,019	1,868,149	2,344,161	4,212,310
Average Receipts per Passenger per mile... d.	0·76	0·69	0·69	1·67	1·11	1·30

On the suburban lines in 1928-29 the average journey was about $7\frac{1}{2}$ miles, the rate paid by first-class passengers was $\frac{3}{4}$ d. per mile and by second-class passengers $\frac{7}{10}$ d. per mile. On country lines the average journey by first-class passengers was 103 miles and by second-class $60\frac{1}{2}$ miles, the rates per mile being $1\frac{1}{2}$ d. and slightly over 1d. respectively. The journeys of second-class passengers represented 89 per cent. of the mileage and 88 per cent. of the receipts on suburban lines. The corresponding proportions on country lines were 65 per cent. of the mileage and 56 per cent. of the receipts.

Information relating to passenger mileage from 1911 onwards is contained in the following table. The figures in respect of mileage in the last four years are not strictly comparable with those of earlier years owing to an alteration in the basis of estimating the mileage travelled by season ticket-holders:—

Year ended 30th June.	Passenger Train Mileage. (000 omitted.)	Passenger Journeys. (000 omitted.)	Total Passenger Miles. (000 omitted.) *	Amount received from Passengers.	Average Number of Passengers carried per Train.	Average Mileage per Passenger Journey. *	Average Receipt per Passenger Mile. *	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked. *
				£			d.	d.	
1911	8,094	60,920	906,217	2,074,860	112	14·88	0·55	8·17	244,066
1921	11,301	120,735	1,620,857	5,736,256	143	13·42	0·85	11·40	322,976
1926	14,038	130,726	1,675,091	6,311,690	119	12·81	0·90	11·59	292,733
1927	15,044	141,616	1,765,378	6,643,337	117	12·47	0·90	11·26	307,184
1928	16,036	148,047	1,809,307	6,998,147	113	12·22	0·93	11·34	310,568
1929	16,738	151,116	1,820,701	7,238,329	109	12·05	0·95	11·50	308,410

* The figures for the last four years are not strictly comparable with those for earlier years.

Goods Traffic.

The following figures illustrate the growth of the goods traffic in recent years:—

Year ended 30th June.	Goods and Live-stock Traffic.		Per Head of Population.	
	Tonnage.	Gross Earnings.	Tonnage.	Gross Earnings.
		£		£ s. d.
1901	6,398,227	2,203,249	4·7	1 12 4
1911	10,355,565	3,585,424	6·3	2 3 9
1921	15,563,131	7,270,856	7·4	3 9 7
1922	14,532,811	7,953,909	6·8	3 14 9
1923	13,801,310	7,868,769	6·4	3 12 5
1924	15,693,127	8,096,274	7·1	3 13 3
1925	16,208,476	9,010,929	7·2	4 0 0
1926	15,032,811	8,941,123	6·5	3 17 10
1927	17,224,894	10,490,593	7·3	4 9 4
1928	15,433,083	10,228,586	6·4	4 5 2
1929	14,516,643	10,379,192	5·9	4 4 9

The tonnage and gross earnings in 1926-27 were the largest on record. In 1927-28 there was a reduction in the tonnage of nearly all the principal classes of freight, viz., grain, wool, coal, and general merchandise. In 1928-29 there was an increase over the previous year's figures for grain and for wool, but there was a greater decline in the quantity of coal and coke and the total tonnage was the lowest since 1922-23.

The next statement shows the classes of goods carried on the railways in various years since 1901.

Year ended 30th June.	General Merchandise.		Wool.	Live Stock.	Minerals.		Total Goods.
	Grain, Flour, etc. (Up Journey).	Other.			Coal, Coke, and Shale.	Other.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1901	504,880	1,287,742	99,104	200,339	3,956,033	370,129	6,398,227
1911	787,632	2,298,078	137,599	485,021	6,059,648	587,587	10,355,565
1921	1,216,834	3,375,443	93,760	732,804	8,881,796	1,262,494	15,563,131
1922	1,651,994	3,350,796	128,085	603,067	7,491,001	1,307,868	14,532,811
1923	827,775	3,572,401	124,033	736,895	7,154,346	1,385,860	13,801,310
1924	1,175,533	3,653,111	111,597	742,611	8,501,944	1,508,331	15,693,127
1925	2,065,247	3,502,935	143,175	651,599	8,181,176	1,664,344	16,208,476
1926	1,450,813	3,656,355	154,946	766,557	7,145,225	1,858,915	15,032,811
1927	1,523,519	3,971,798	189,605	810,515	8,289,937	2,439,520	17,224,894
1928	1,222,382	3,632,926	171,249	829,791	7,074,845	2,501,890	15,433,083
1929	1,767,585	3,631,914	179,960	729,581	5,801,880	2,405,723	14,516,643

The gross earnings in respect of the various classes of goods carried during 1928-29 were as follows:—Coal, coke, and shale, £1,426,780, other minerals, £636,253; live stock, £1,315,552; grain and flour, £1,208,050; wool, £804,064; general merchandise, £4,988,493.

The following table contains information relating to ton mileage in 1911, and later years. "Ton-mileage" is the product of the load in tons and the distance in miles over which the load is carried. The average distance in 1928-29 was 118 $\frac{1}{4}$ miles and the average earnings per ton mile 1 $\frac{1}{2}$ d.:—

Year ended 30th June.	Goods Train Mileage. (000 omitted.)	Tons Carried. (000 omitted.)	Ton-miles. (000 omitted.)	Earnings, exclusive of haulage, tonnage dues, etc.	Average Freight-paying Load carried per Train.	Average Miles per Ton.	Earnings per Ton-mile.	Density of Traffic per average mile worked.
				£	Tons.		d.	Tons.
1911	8,913	10,055	810,949	3,079,783	90·98	80·65	0·91	218,408
1921	11,491	15,262	1,418,386	6,501,914	123·43	92·94	1·10	282,631
1926	10,587	14,809	1,509,555	8,769,785	142·58	101·93	1·39	263,802
1927	11,282	16,864	1,654,815	10,335,666	146·68	98·13	1·50	287,994
1928	10,861	15,223	1,550,375	10,093,708	142·75	101·84	1·56	266,408
1929	10,645	14,307	1,690,560	10,247,398	158·82	118·16	1·45	286,376

* Exclusive of coal, etc., on which shunting charges only were collected.

FARES AND FREIGHT CHARGES.

Passenger traffic is greatest within the Sydney and Newcastle suburban areas, and the fares charged within a 34 miles radius of either of the cities are lower than those for equal distances outside those areas. The following table shows the fares charged for ordinary single journeys at quinquennial intervals since 1911, over stated distances from either Sydney or Newcastle. Cheaper fares are available for journeys to tourist districts and holiday resorts.

Single Tickets.

Distance.	30th June, 1911.		30th June, 1921.		30th June, 1926.		31st December, 1929.	
	First-class.	Second-class.	First-class.	Second-class.	First-class.	Second-class.	First-class.	Second-class.
Miles.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1	0 2	0 1	0 3 $\frac{1}{2}$	0 2	0 2	0 1 $\frac{1}{2}$	0 2 $\frac{1}{2}$	0 2
5	0 5	0 4	0 8	0 6	0 8	0 6	0 8 $\frac{1}{2}$	0 6 $\frac{1}{2}$
10	0 9	0 6	1 3	0 10 $\frac{1}{2}$	1 2	0 10 $\frac{1}{2}$	1 3	0 11
20	1 6	0 11	2 5	1 6	2 0	1 6	2 1	1 7
30	2 2	1 5	3 7	2 4	2 10	2 1 $\frac{1}{2}$	3 0	2 3 $\frac{1}{2}$
34	2 6	1 7	4 1	2 7 $\frac{1}{2}$	3 2	2 4 $\frac{1}{2}$	3 4	2 6 $\frac{1}{2}$
50	4 6	2 11	7 7	5 0	6 8	4 9	6 10	4 11
100	10 9	7 1	18 7	12 2	17 7	12 0	17 9	12 2
200	23 3	14 9	40 7	25 7	37 7	25 4	37 9	25 6
300	35 9	22 1	62 2	38 3	56 5	37 11	56 7	38 1
400	48 3	28 8	83 7	49 10	73 8	49 5	73 10	49 7
500	58 0	33 4	100 8	57 10	86 4	57 10	86 6	57 10

Between July, 1917, and June, 1921, railway fares were increased by 66 per cent. During 1923-24 second-class fares were lowered slightly and first-class fares were reduced to an appreciable extent. In December, 1927, when

the last alteration was made, fares were raised again, and the increases on second-class tickets ranged from 33 per cent. to 7 per cent. in the suburban area.

The average fare paid by suburban passengers, including those who held periodical tickets, increased by about 50 per cent. between 1911 and 1926-27. Similar information is not available in respect of country traffic, but, generally, the first-class single fares were between 50 per cent. and 60 per cent. higher in 1927 than in 1911, and the second-class single fares were about 70 per cent. higher.

Particulars relating to changes in the cost of monthly periodical tickets since 1911 are shown below:—

Periodical Tickets.

Distance.	30th June, 1911.		30th June, 1921.		30th June, 1926.		31st December, 1929.	
	First Class.	Second Class.	First Class.	Second Class.	First Class.	Second Class.	First Class.	Second Class.
Miles.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1	7 6	5 0	14 6	9 9	12 11	9 8	13 9	10 4
5	16 0	10 9	30 9	20 6	27 4	20 6	29 4	22 0
10	22 9	15 0	44 0	29 0	38 3	28 8	41 0	30 9
20	30 3	20 3	58 0	39 3	52 3	39 2	55 11	42 0
30	34 3	22 9	66 6	44 9	58 0	43 6	62 1	46 7
34	35 9	23 6	69 3	46 0	59 9	44 10	64 0	48 0
50	41 0	26 3	79 9	51 0	77 0	51 3	81 6	54 3
100	57 9	34 6	112 6	66 9	100 3	66 9	106 6	70 9
200	83 0	49 0	156 3	92 6	138 9	92 6	147 0	98 0
300	100 6	61 6	181 9	112 6	168 0	112 0	178 0	118 9
400	118 0	74 0	207 0	131 3	197 0	131 3	208 9	139 0
500	135 6	86 6	231 6	150 6	225 9	150 6	239 3	159 6

The above rates represent the maximum charges, but liberal concessions are made to school pupils, youths, and women. During 1922 there were slight reductions in respect of second-class periodical tickets, and charges for first-class tickets over long distances were substantially reduced. Further reductions were made in 1924, in rates for distances up to 34 miles. At the beginning of January, 1928, the rates were raised by about 7 per cent. in the suburban area and by 6 per cent. over longer distances.

Workmen's weekly tickets are issued in the suburban areas to enable persons to travel to and from their work. They are available for one journey each way on every week day, the forward journey being by certain trains only. The charges for these tickets were increased by about 30 per cent. in December, 1927, and the increased rates are still in operation. The rates at various dates since June, 1911, were as follows:—

Distance.	Workmen's Weekly Tickets—Second Class.				
	June, 1911.	June, 1916.	June, 1921.	June, 1926.	December, 1923.
	s. d.	s. d.	s. d.	s. d.	s. d.
1	0 6	0 9	1 3	1 3	1 8
5	1 6	1 9	2 11	2 11	3 11
10	2 2	2 6	4 1	4 1	5 6
20	3 0	3 4	5 5	5 5	7 4
30	3 10	4 2	6 11	6 11	9 0
34	4 2	4 6	7 5	7 5	9 8

Freight Charges.

The system adopted in fixing freights on merchandise and live stock is to charge the lowest scale of freight on commodities of low values and on those which are used to assist production. The charge per ton mile decreases as the distance hauled increases.

The following table gives the charges per ton for haulage of the different classes of freight over distances of 100 and 500 miles at various dates since June, 1911:—

Class of Freight.	30th June, 1911.		30th June, 1921.		30th June, 1926.		31st Dec., 1929.	
	100 miles.	500 miles.	100 miles.	500 miles.	100 miles.	500 miles.	100 miles.	500 miles.
Ordinary Goods (per ton)—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Highest Class Freight...	44 11	115 9	75 0	193 3	76 8	197 6	76 8	197 6
Lowest „ „ ...	3 7	11 11	6 6	15 0	6 9	12 4	6 9	12 4
Agricultural Produce ...	7 6	12 0	11 5	18 2	11 5	19 0	12 0	19 11
Butter	18 10	56 4	31 7	94 0	24 10	57 7	27 4	63 4
Beef, Mutton, Veal, etc. (frozen)	9 2	45 10	14 7	72 11	18 11	43 11	18 11	43 11
Wool—Greasy	25 0	68 9	37 11	104 4	41 8	109 5	41 8	109 5
„ —Scoured	29 2	75 0	44 3	113 10	45 10	115 8	45 10	115 8
Minerals—Crude Ore— Not exceeding £20 per ton in value ...	4 2	15 8	6 5	22 6	{ 6 5 22 5½		6 5	22 5½
Not exceeding £10 per ton in value ...					{ 6 5 17 10½			
Live Stock (per 4-wheeled truck)—	63 4	173 9	110 5	303 4	109 9	299 9	120 9	329 8

The highest class freight includes expensive, bulky, or fragile articles, such as boots, drapery, drugs, groceries, furniture, liquors, crockery, glass-ware, cutlery, ironmongery, confectionery, and carpets; the lowest class applies to fertilisers.

The freight charges for a distance of 100 miles in 1921 were from 50 to 100 per cent. higher than in 1911. For a distance of 500 miles the increases have not been so great proportionately, and the charges for frozen meat have been reduced. Some of the rates were increased in November, 1926.

GRADIENTS.

In many cases the railways of New South Wales pass through mountainous country over the Great Dividing Range which separates the narrow coastal plain from the interior. Consequently steep gradients and sharp curves are features of many sections, including parts of the trunk lines where the traffic is heavy.

In the southern system, the railway station at Roslyn, near Crookwell, is situated at an altitude of 3,225 feet above sea level; and at Nimmitabel, on the Goulburn to Bombala railway, the height is 3,503 feet. In the

western system a height of 3,503 feet is attained at Newnes Junction, on the Blue Mountains, and 3,623 feet at Oberon, the terminus of a branch from Tarana. On the northern line Ben Lomond is 4,473 feet above sea level.

Numerous deviations have been made during recent years in order to secure easier grades and curves, with the result that considerable economy in working and expedition in traffic have been effected.

The following statement shows the number of miles on different gradients in June, 1929:—

Gradients.	Southern System.	Western System.	Northern System.	Total.
1 in	miles.	miles.	miles.	miles
18 to 30	12 $\frac{1}{2}$	7	3	22 $\frac{1}{2}$
31 „ 40	65 $\frac{1}{4}$	61 $\frac{3}{4}$	54 $\frac{1}{2}$	181 $\frac{1}{2}$
41 „ 50	74 $\frac{3}{4}$	54	87 $\frac{1}{4}$	216
51 „ 60	65 $\frac{1}{2}$	80 $\frac{3}{4}$	62 $\frac{3}{4}$	209
61 „ 70	58 $\frac{1}{4}$	69 $\frac{3}{4}$	40 $\frac{1}{4}$	168 $\frac{1}{4}$
71 „ 80	178 $\frac{1}{2}$	142 $\frac{3}{4}$	178	499 $\frac{1}{4}$
81 „ 90	45 $\frac{3}{4}$	58 $\frac{1}{4}$	47 $\frac{1}{4}$	151 $\frac{1}{4}$
91 „ 100	118 $\frac{1}{4}$	179 $\frac{1}{2}$	92 $\frac{1}{2}$	390 $\frac{1}{4}$
101 „ 150	238 $\frac{1}{4}$	289	157 $\frac{1}{2}$	684 $\frac{3}{4}$
151 „ 200	130 $\frac{3}{4}$	124 $\frac{1}{4}$	91	346
201 „ 250	67 $\frac{1}{4}$	78 $\frac{1}{2}$	43 $\frac{3}{4}$	189 $\frac{1}{2}$
251 „ 300	96 $\frac{3}{4}$	112 $\frac{1}{4}$	67 $\frac{1}{2}$	276 $\frac{1}{2}$
301 „ level	896 $\frac{1}{2}$	964 $\frac{3}{4}$	703 $\frac{1}{2}$	2,564 $\frac{3}{4}$
Total...	2,048 $\frac{1}{4}$	2,222 $\frac{1}{2}$	1,628 $\frac{3}{4}$	5,899 $\frac{1}{2}$

The above table is exclusive of the Government line from Broken Hill to Tarrawingee, measuring 39 miles 41 chains, and that at Wollongong of 1 mile 8 chains.

SIGNALLING AND SAFETY APPLIANCES.

In the matter of signalling and safety appliances the railways of New South Wales have progressed with modern invention. The points are interlocked on all the lines with the exception of a few in remote country districts where the traffic is light. An automatic signalling system is in operation on the suburban lines and is being installed in country districts.

Particulars regarding the various systems employed for the safe working of the lines in 1921 and 1929 are shown below:—

		1921.		1929.	
Single Line.		Mls.	Chs.	Mls.	Chs.
By automatic or track block system	...	...	...	82	28
electric train tablet	...	315	17	197	32
electric train staff	...	1,822	43	2,784	76
train staff and ticket with line clear reports	...	1,451	38	1,361	29
train staff and ticket without line clear report	...	714	1	842	34
train staff and one engine only	...	116	57	2	72
		4,419	76	5,271	31
Double Line.					
By automatic or track block system	...	251	8	381	54
absolute manual block system	...	382	0	328	14
permissive manual block system	...	5	12	4	60
telephone	...	0	33	...	...
		638	53	714	48

All passenger and freight vehicles in use on the railways are fitted with automatic brakes.

ROLLING STOCK.

A classification of the rolling stock of the State railways is shown in the following table:—

Classification.	June, 1928.		June, 1929.	
	No.	Capacity.	No.	Capacity.
Locomotives—Steam	1,434	Tractive power. lb. 36,452,784	1,425	Tractive power. lb. 36,362,804
Coaching—		Passengers.		Passengers.
Special and Sleeping	118	2,660	124	2,771
First Class	604	36,057	799	51,290
Second Class	1,114	70,231	1,186	75,123
Composite	218	11,815	221	12,118
Dining	2	68	2	68
Motor Passenger	32	1,664	32	1,664
Brake Vans	147	78	164	78
Horse Boxes, Mail Vans, etc. ...	245	250	249	291
Total	2,480	122,823	2,777	143,403
Goods—		tons.		tons.
Open Waggons	17,187	289,226	17,564	298,812
Livestock Waggons	3,104	19,652	3,104	19,652
Louvred Vans	1,023	16,282	1,023	16,292
Refrigerator Vans	235	3,400	237	3,432
Brake Vans	701	...	711	...
Other	71	823	70	815
Total	22,321	329,383	22,709	339,003
Departmental—				
Loco. Coal, Ballast Waggons, etc. ...	1,485	...	1,578	...

The average tractive power of the railway locomotives, as at 30th June, 1929, was 25,518 lb.; the average capacity of the passenger vehicles was 60 passengers, and of the goods stock 15 tons. Additions to railway rolling stock during 1928-29 included 2 locomotives, and 258 suburban passenger cars designed for use on the electric railways.

SYDNEY AND SUBURBAN PASSENGER SERVICES.

The passenger traffic between Sydney and suburbs is conducted by suburban railways and tramways maintained by the State, and by ferry and motor omnibus services conducted by private enterprise.

The railway suburban traffic is principally on the main trunk line, which runs in a westerly direction from Sydney through Granville and Parramatta. The main southern system branches from the western line at Lidcombe (10 miles from Sydney), and another branch runs southward from Granville (13 miles), joining the line from Lidcombe at Cabramatta. The Northern system branches off at Strathfield (8 miles from Sydney). The South Coast or Illawarra railway, which has a branch from Sydenham (3 miles) to Bankstown (11 miles), brings passengers from the suburbs situated south of Sydney on the western shore of Botany Bay. A line from Bankstown connects with the main southern line at Regent's Park, 2 miles from Lidcombe. The suburban railways are being extended into the city and are being converted to electric traction.

Tramways run through the city streets from the Central Railway Station to Circular Quay. The populous suburbs of the north, western, central, and eastern divisions of the metropolitan area are served by tramways. On the north shore of Port Jackson there is a railway to connect the ferry service at Milson's Point with Hornsby on the main northern line, and at various points along the shores of the harbour tramways connect with the ferry services plying to the Circular Quay.

City and Suburban Electric Railways.

The city electric railway, which is under construction, will form a complete two-track loop railway around the city, running, for the most part underground, along the eastern side of the city to Circular Quay and returning along the western side to the Central Station. The scheme includes the construction of a branch from the city railway to Bondi for the eastern suburbs, and a branch from the main suburban line to Balmain to serve the western suburbs. The completion of the Sydney Harbour bridge with four lines of railways as well as roadways and footways, will place the northern suburbs in direct communication with the city.

The construction of the city railway was commenced in 1916 by a private company under contract with the Government, but the contract was cancelled and the work was suspended in 1917. Construction was resumed by the Railway Commissioners in February, 1922, and the eastern part of the railway to a temporary terminal station at St. James, Queen's-square was opened for traffic in December, 1926. Work on the western section was commenced in November, 1925.

The eastern section of the city railway being the first to be opened for traffic, the most easterly of the suburban lines, viz., the Illawarra, were the first to be converted to the electric system. Electric trains were run on the Illawarra lines on 1st March, 1926, and with the opening of the City Railway the services were extended to St. James Station. The work of converting the North Sydney line was completed in 1928, and electric services were installed on the Sydney-Parramatta section of the main suburban line and on the section between Strathfield and Hornsby in 1929.

The total length of the lines under the electric system in January, 1930, was 89 miles 62 chains, as shown below:—

Line.	Length of Route.		Line.	Length of Route.	
	miles	chs.		miles	chs.
City Railway	1	20	Lidcombe to Cabramatta...	7	10
Sydney to National Park...	17	57	Granville to Liverpool ...	9	16
Sydenham to Bankstown...	11	68	Warwick Farm Racecourse	0	71
Sydney to Parramatta ...	13	28	Milson's Point Line ...	13	11
Strathfield to Hornsby ...	14	13			
North Strathfield Triangle	1	8	Total	89	62

All these lines are laid with two tracks with the following exceptions:—The line from Sydney to National Park includes 9 miles 28 chains with four tracks and 1 mile 15 chains of single track; Sydney to Parramatta, 10 miles 40 chains with four tracks; Strathfield to Hornsby, 2 miles 33 chains with three tracks and 13 chains of single track; Warwick Farm Racecourse line, 71 chains of single track.

RAIL MOTOR SERVICES.

Rail motors have been provided in a number of country districts where the population is not sufficient to warrant the provision of ordinary services. The first rail motor was put into operation in 1919 on the line between Grafton and Lismore, a distance of 87 miles. Second-class accommodation was provided for passengers, also a trailer for the transport of cream. The experiment proved successful, and the use of rail motors on country branch lines is being extended. A few local services in the suburban districts are conducted by motor trains.

VICTORIAN GOVERNMENT RAILWAYS IN NEW SOUTH WALES.

In the southern portion of New South Wales the Government of Victoria has acquired certain railway interests by the purchase from a private company of a line between Deniliquin and Moama, and by agreement with the Government of New South Wales for the construction and maintenance of five border railways.

The agreement provides for railways on the 5 ft. 3 in. gauge, but all the works within New South Wales are being constructed suitably for conversion to the standard gauge, viz., 4 ft. 8½ in. When complete they are operated by the Victorian Railway Commissioners, but the fares and rates for the carriage of passengers, goods, and live stock thereon must not be less than the rates charged for similar mileage on the Victorian Railways. In the construction and working of the lines the same conditions and rates of wages as prevail in Victoria must be observed.

Two of the lines authorised under the agreement have been opened for traffic, viz., from Moama to Balranald, and from Gonn Crossing to Stony Crossing. Two are under construction, viz., from Euston to Lette, 30 miles, to serve en route the Benanee Settlement Area, and from Yarrawonga to Oaklands 37 miles. The fifth line will cross the Murray at or near Golgol, New South Wales, and extend into this State for a distance not exceeding 20 miles.

The railway between Deniliquin and Moama, 44 miles 33 chains on the 5 ft. 3 in. gauge, was constructed by a private company, and opened for traffic in 1876. It became part of the Victorian railway system in December, 1923, and a branch line to Balranald, 120 miles, was opened for traffic in March, 1926. The capital expended to the end of February, 1929, was £980,094. During the year ended February, 1929, the receipts amounted to £63,600, working expenses to £67,993, and interest to £47,602. The number of passengers was 29,331, the goods traffic amounted to 76,409 tons, and the live stock carried numbered 858,269. Of a train mileage of 121,104 miles, 94,754 were by steam traction and 26,350 by rail motor. The line from Gonn Crossing to Stony Crossing, 38½ miles, was opened for traffic on 16th March, 1928.

PRIVATE RAILWAY LINES.

The established policy in New South Wales has been to keep the railways under State control, and at the present time there are only 112½ miles of private lines in operation, with the exception of short lines connecting coal and other mines with the main railways, on some of which provision has been made for the carriage of passengers and goods.

During the year 1888 a line of 3 ft. 6 in. gauge, and 35 miles 48 chains in length, was laid down from Silvertown and Broken Hill to the South Australian border. A short line connects the Government railway at Liverpool with the Warwick Farm Racecourse.

The Seaham Coal Company's line connects the West Wallsend and Seaham Collieries with Cockle Creek. The South Maitland system supplies the mining districts of East Greta, Stanford-Merthyr, and Cessnock. The Hexham-Minmi line runs between the collieries in the townships mentioned. The line of the Commonwealth Oil Corporation extends from Newnes Junction, on the Western line, to the Wolgan Valley.

The following table shows the operations of the private railway lines open to the public for general traffic during the year 1928:—

Name of Private Railway.	Line.		Total Capital Expended.	Reserve Fund.	Train Miles run.	Passengers carried.	Goods carried.	Live Stock carried.
	Length.	Gauge.						
	m. ch.	ft. in.	£	£	No.	No.	tons.	No.
Silvertown	35 48	3 6	562,334	32,000	121,423	29,530	829,810	184,408
Warwick Farm	0 50	4 8½	5,700	...	230	97,190	...	366
Seaham Colliery... ..	6 0	4 8½	16,000	...	8,035	13,455	10,743	...
South Maitland— East Greta, Stanford Merthyr, and Cess- nock	19 35	4 8½	676,900	...	393,500	817,204	118,211	270
Hexham-Minmi... ..	26 0	4 8½	†	...	1,836	...	17,596*	†
New Red Head	7 0	4 8½	102,000	...	56,310	371,958	†	†
Commonwealth Oil Cor- poration.	33 0	4 8½	194,000	...	†	†	†	†

* Excluding coal.

† Not available.

‡ No traffic during 1928.

The Silvertown Company has 20 locomotives, 665 goods vehicles, and 1 passenger carriage; and additional passenger carriages are hired from the South Australian Government railways as required. On the Warwick Farm line Government rolling-stock is used. The Seaham Colliery has 2 locomotives, 2 passenger carriages, and 2 goods vehicles, and Government rolling stock is hired. On the South Maitland system there are 25 locomotives, 30 passenger carriages, and 50 goods carriages. The Hexham-Minmi Company has 1 locomotive and 1 passenger carriage; and the Commonwealth Oil Corporation has 3 locomotives, 3 passenger carriages, and 30 goods carriages and vans. The New Red Head line is operated by the Government Railway Commissioners.

In addition to the private railway lines shown in the previous table, there are several branches, connected principally with coal and other mines, with a total length of 156 miles, a summary of which is given below:—

District.	Length.	Gauge.
	m. ch.	ft. in.
Connected with Main Suburban Line	2—66	4 8½
„ Northern Line	101—55	4 8½
„ Western „	28— 8	4 8½
South Coast „	{ 3—40 19—77	{ 3 6 4 8½

RAILWAY GAUGES OF AUSTRALIA.

Particulars of the gauges of the railways in each State are shown below. The figures relate to Government lines as at 30th June, 1929, and to private railways open for general traffic as at 31st December, 1928. The lines have been classified according to the States in which they are located. Particulars of private lines used exclusively for special traffic are not included in the figures:—

State.	Miles at each Gauge open for traffic.						Total Miles.
	2ft.	2ft. 6in.	3ft.	3ft. 6in.	4ft. 8½in.	5ft. 3in.	
New South Wales...	76	5,987	203	6,266
Victoria	122	11	...	5	4,394	4,532
Queensland...	...	195	7	...	6,519	...	6,721
South Australia (inc. N. Territory)	2,026	597	1,464	4,087
Western Australia...	4,356	454	...	4,810
Tasmania	42	...	795	...	...	837
Total	237	129	11	13,772	7,043	6,061	27,253

The distances by rail between Sydney and the other capital cities are as follows:—Brisbane 715 miles, Melbourne 591 miles, Adelaide *via* Melbourne 1,074 miles, and Perth *via* Melbourne 2,761 miles. The journey from Sydney to Broken Hill *via* Melbourne and Adelaide is more than 1,400 miles, but a line across New South Wales opened for traffic in November, 1927, affords direct communication over a distance of 698½ miles.

Diversity of gauge hampers interstate railway communication, and in a journey from Queensland to Western Australia breaks of gauge occur at Wallangarra, where the systems of Queensland and New South Wales meet; at Albury, on the border of New South Wales and Victoria; at Terowie and at Port Augusta in South Australia; at Kalgoorlie, where the Commonwealth and Western Australian lines connect.

The subject of a uniform gauge to connect the capital cities of the mainland has been discussed at conferences between the Prime Minister of the Commonwealth and Premiers of the States, and was investigated by a Royal Commission in 1921. It has been resolved that the adoption of a uniform gauge is essential to the development and safety of the Commonwealth, and that the gauge should be 4 ft. 8½ in., but an agreement has not been reached in regard to any comprehensive scheme for giving effect to the resolutions.

As an outcome of the negotiations, however, steps are being taken to provide railway communication on a uniform gauge between Sydney and Brisbane. For this purpose an agreement has been made between the Commonwealth and the States of New South Wales and Queensland for the construction of a line on the 4 ft. 8½ in. gauge between Kyogle, on the North Coast railway in New South Wales, and Brisbane. The construction of the new railway and the strengthening of an existing line between Kyogle and Grafton have been undertaken by the two States concerned. The cost is estimated at £4,000,000, of which New South Wales has agreed to pay

£1,288,088, Queensland £468,613, and the Commonwealth £2,243,299. The journey between Sydney and Brisbane over the new route will be shorter by 100 miles than the journey via Wallangarra.

Another agreement has been made between the Commonwealth and South Australia for the construction of a 4 ft. 8½ in. line in South Australia, from Port Augusta to Red Hill, and for laying a third rail on the existing 5 ft. 3 in. line between Red Hill and Adelaide. By these works a line on the 4 ft. 8½ in. gauge would be provided from Adelaide to Kalgoorlie, the trans-Australian journey would be shortened by about 70 miles, and the breaks of gauge at Terowie and Port Augusta would be eliminated.

RAILWAYS OF NEW SOUTH WALES AND OTHER COUNTRIES.

The length of railways—State and private—in various countries is shown below in relation to population and area. The figures for the Australian States include the Federal Government lines as at 30th June, 1929, and the private lines available for general traffic in 1928. Particulars of private lines used for special traffic, included in the tables in former issues of the Year Book, are not available. The particulars relating to other countries are the latest available.

Country.	Length of Railways.	Per Mile of Line Open.		Country.	Length of Railways.	Per Mile of Line Open.	
		Population (approx)	Area.			Population (approx)	Area.
	miles.	No.	sq.mls.		miles.	No.	sq.mls.
New South Wales	6,266	395	50	Italy	13,365	3,053	9
Victoria	4,532	390	19	Austria	4,150	1,590	8
Queensland	6,721	138	100	Hungary	5,388	1,582	7
South Australia and Northern Territory ...	4,087	143	221	Russia (Soviet) ...	47,022	3,100	175
Western Australia	4,810	86	203	Union of S. Africa	12,830	606	37
Tasmania	837	254	31	India	39,712	8,200	45
New Zealand	3,403	432	31	Japan	11,342	5,600	14
Great Britain and Northern Ireland	21,165	2,150	4	Canada	42,224	227	87
Irish Free State ...	2,674	1,120	10	United States of America ...	249,131	478	12
France	33,688	1,164	6	Argentina	22,791	460	51
Germany	36,126	1,772	5	Brazil	19,544	2,180	168

TRAMWAYS.

The tramways of New South Wales, with one exception, are the property of the State Government. The standard gauge of 4 ft. 8½ in. has been adopted for all lines. The electric system, introduced into Sydney at the close of 1899, is used for nearly all tramways in the metropolitan district. The majority of the Newcastle lines also have been converted from the steam to the electric system.

The total length of lines open for traffic at 30th June, 1929, was 210½ miles. Many of the lines are laid with duplicate tracks, and the aggregate length of the tracks was 358½ miles. There were also 58½ miles of sidings, loops, and crossovers.

Line.						Route Mileage.	Track Mileage.
Electric—						mls. ch.	mls. ch.
City and Suburban	...	...	...	...	...	118 35	217 29
North Sydney	...	...	...	...	...	22 61	41 9
Ashfield to Mortlake and Cabarita	...	...	...	...	...	8 38	15 9
Rockdale to Brighton-le-Sands	...	...	...	...	...	1 49	1 49
Manly to The Spit and Manly to Narrabeen	...	...	...	...	...	11 50	16 37
Newcastle City and Suburban *	...	...	...	...	...	34 45	52 38
						197 38	344 11
Steam—							
Kogarah to Sans Souci	...	...	...	...	...	5 45	6 79
Sutherland to Cronulla	...	...	...	...	...	7 32	7 32
						12 77	14 31
Total						210 35	358 42
Sidings, loops, and cross-overs						...	58 20

* Including portion under steam system.

There has been little extension of the tramway system in recent years owing to the impending electrification of the metropolitan suburban railways and to the competition of motor transport. A number of steam tramway services, which had been operated at a loss for some years, were discontinued as from 1st January, 1927. The capital cost of these lines was written off to working expenses, viz., £50,000 in 1926-27, £95,510 in 1927-28, and £1,705 in 1928-29.

The capital cost of the State tramways open for traffic on 30th June, 1929, amounted to £11,743,189, or £55,801 per mile open. The cost of construction was £5,774,433, or £27,439 per mile, and the expenditure on rolling-stock, workshops, machinery, etc., amounted to £5,968,756.

In the following table are given particulars of the miles open, cost of construction, and the financial results of the State tramways at intervals since 1901:—

Year ended 30th June.	Total Length of Lines.	Capital Expended on Lines open for Traffic.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest Returned on Capital.
	Miles.	£	£	£	£	per cent.
1901	79½	2,194,493	551,674	462,471	89,203	4·10
1911	189½	5,121,586	1,365,631	1,143,949	221,682	4·53
1921	227½	9,060,757	3,471,738	2,948,252	523,486	5·93
1922	229½	9,505,327	3,610,135	3,015,616	594,519	6·41
1923	225	9,975,031	3,598,114	3,092,306	505,808	5·19
1924	227½	10,758,958	3,633,916	3,091,531	542,385	5·23
1925	228½	11,131,454	3,619,272	3,174,862	444,410	4·06
1926	228½	11,434,523	3,619,496	3,319,996	299,500	2·65
1927	209½	11,536,050	3,806,098	3,487,834	318,264	2·77
1928	209½	11,609,078	4,556,561	3,937,356	619,205	5·34
1929	210½	11,743,189	4,457,890	3,835,644	622,246	5·33

The receipts increased by £750,000 in 1927-28 in consequence of higher fares introduced in December, 1927. There was a decline in 1928-29, but working expenses were reduced and the net earnings were the highest during the period under review.

The percentage of working expenses to the total receipts was 86.04 during the year ending 30th June, 1929, as compared with 86.41 in the previous year. The net earnings amounted to £622,246, or 5.33 per cent., on cost of construction and equipment, as compared with 5.14 per cent., the average interest payable on the loan liabilities of the State. The net return per average mile open was £2,966, as compared with £2,955 in the previous year.

A comparative statement of the profit or loss on the tramways after allowing for interest is shown below:—

Year ended 30th June.			Net earnings.	Interest.	Profit (+) Loss (—) allowing for interest.	
			£	£	£	
1911	...	...	221,682	174,055	(+)	47,627
1921	...	...	528,486	421,814	(+)	106,672
1922	...	...	594,519	467,328	(+)	127,191
1923	...	...	505,808	500,274	(+)	5,534
1924	...	...	542,385	532,187	(+)	10,198
1925	...	...	444,410	546,489	(—)	102,079
1926	...	...	299,500	577,900	(—)	278,400
1927	...	...	318,264	588,180	(—)	269,916
1928	...	...	619,205	591,397	(+)	27,808
1929	...	...	622,246	631,589*	(—)	9,343

*Includes Sinking Fund charges, £31,589.

Until 1923-24 the tramways usually yielded a substantial surplus over working expenses and interest. In 1921-22, for instance, the surplus amounted to £127,191, and in each of the two succeeding years there was a surplus, though it was small. At this time there occurred a marked expansion in motor omnibus services and in the use of private motor vehicles, and tramway traffic began to decline. Consequently the net earnings of the tramways fell away rapidly, and in 1925-26 they were only £229,500 as compared with £594,519 in 1921-22. Meanwhile interest charges rose continuously under the system of public accounts which was in operation at that period, and there was a large deficit of earnings as compared with interest charges in 1925-26 and 1926-27. In order to effect an improvement it was decided to abandon a number of unprofitable lines at the beginning of 1927, and in December following fares were increased. Consequently there was a surplus of £27,808 in 1927-28, notwithstanding the fact that a large sum had been written off to working expenses on account of the abandoned lines. In 1928-29 sinking fund charges £31,589 were debited for the first time, and there was a deficit of £9,343.

Working of Tramways.

The following statement shows the results of working in respect of the various tramways during the year ended 30th June, 1929:—

Line.	Cost of Construction and Equipment.	Passengers carried.	Gross Revenue.	Working Expenses.	Excess Revenue (+) or Expenses (—).	Interest and Sinking Fund.	Profit (+) Loss (—) allowing for interest and Sinking Fund.
	£	No.	£	£	£	£	£
Electric—							
City and Suburban ...	8,325,838	271,715,054	3,621,441	3,053,977	(+) 567,464	447,521	(+) 119,943
North Sydney ...	1,082,705	25,278,613	278,188	268,425	(+) 9,763	58,747	(+) 48,984
Ashfield to Mortlake and Cabarita ...	240,525	8,401,914	81,416	78,864	(+) 2,552	13,041	(+) 10,489
The Spit to Manly, Harbord, and Narrabeen.	366,532	4,521,352	61,197	58,424	(+) 2,773	19,923	(+) 17,150
Rockdale to Brighton-le-Sands ...	45,222	2,115,536	19,217	11,704	(+) 7,513	2,332	(+) 5,181
Newcastle City and Suburban. ...	1,580,832	17,807,702	351,363	301,577	(+) 49,786	84,479	(+) 34,693
Steam—							
Kogarah to Sans Souci	54,523	2,699,496	27,282	36,633	(—) 9,347	2,992	(—) 12,339
Sutherland to Cronulla	47,012	936,382	17,782	24,335	(—) 6,553	2,554	(—) 9,107
Other* ...	...	...	...	1,705	(—) 1,705	...	(—) 1,705
Total, All Lines ...	11,743,189	333,476,049	4,457,890	3,835,644	(+) 622,246	631,589	(+) 9,343

* Expenses incurred in respect of services discontinued 1st January, 1927.

The gross receipts of both sections of steam tramways which were operating during 1928-29 were insufficient to cover working expenses. The lines which are in direct communication with the city and one small suburban section, the Rockdale to Brighton-le-Sands line, showed a surplus over expenses, interest, and sinking fund charges.

The Newcastle lines, which are partly steam and partly electric, yielded net earnings amounted to £49,786, but there was a deficiency over interest and sinking fund charges amounting to £34,693. During this year the receipts were reduced by reason of a protracted dislocation in the coal mines of the district.

Comparison of Tramway Traffic.

The following statement contains a comparison of the passenger traffic and the tram mileage since 1901:—

Year ended 30th June.	Length of line open at 30 June.	Passengers carried.	Tram mileage.	Earnings per tram mile.	Working Expenses per tram mile.
	miles.	No.		s. d.	s. d.
1901	79½	93,703,685	6,835,926	1 7½	1 4½
1911	189½	230,275,938	22,541,429	1 2½	1 0½
1921	227½	337,689,873	28,654,172	2 5	2 0½
1922	229½	330,938,567	29,318,532	2 5½	2 0½
1923	225	331,001,822	30,071,022	2 4½	2 0½
1924	227½	340,957,725	32,110,054	2 3	1 11
1925	228½	339,576,776	33,761,796	2 1½	1 10½
1926	228½	339,411,765	34,214,733	2 1½	1 11½
1927	209½	347,231,141	34,188,015	2 2½	2 0½
1928	209½	346,013,775	34,471,601	2 7½	2 3½
1929	210½	333,476,049	34,081,498	2 7½	2 3

There was a rapid extension of the tramway system between 1901 and 1911, and the traffic increased, but the average earnings declined from 1s 7½d. to 1s. 2½d. per tram mile, and the excess of earnings over working expenses from 3d. to 2½d. Ten years later the earnings and expenses per tram mile were twice as high. The net earnings reached the maximum of 4½d. per tram mile in 1921-22, then declined, the average during the two years ended June, 1927, being only 2½d. In 1928-29 it was 4½d.

The metropolitan tramways showed a decrease of 10,164,436 passengers in 1928-29 as compared with the previous year, and the Newcastle lines a decrease of 2,373,290. On the whole there was a decrease of 12,537,726 passengers in 1928-29, the number being the lowest since 1922-23, though the tram mileage was increased in the interval by 4,000,000 miles.

The following comparison shows the traffic on the city and suburban lines and the North Sydney lines; also the profit and loss after allowing for working expenses and interest. All lines which communicate directly with the city of Sydney are included in the category "City and Suburban." The Ashfield, Kogarah, Arncliffe, and Rockdale lines, which acted as feeders to the railways, and the Manly lines have not been included:—

Year ended 30th June	City and Suburban.				North Sydney.			
	Length of line.	Passengers carried.	Tram mileage.	Profit after paying Interest.	Length of line.	Passengers carried.	Tram mileage.	Profit after paying Interest.
	miles.	000.	miles. (000).	£	miles.	000.	miles (000).	£
1911	97½	197,871	19,107	75,677	16½	15,897	1,929	(—) 6,029
1921	114½	277,687	23,272	205,258	21½	26,539	2,859	3,575
1922	115½	271,385	23,785	284,085	23	26,753	2,979	(—)22,770
1923	115½	272,939	24,261	207,200	23	27,659	3,246	(—)10,040
1924	116½	280,313	25,769	188,472	23½	27,135	3,345	(—)15,874
1925	117½	275,800	26,525	128,418	23½	25,196	3,310	(—)53,734
1926	117½	273,504	26,346	19,824	22¾	25,269	3,215	(—)47,389
1927	118	279,671	26,462	(—) 5,882	22¾	26,600	3,205	(—)55,437
1928	118	279,911	26,815	254,225	22¾	26,724	3,258	(—)55,138
1929	118½	271,715	26,670	119,943*	22¾	25,279	3,175	(—)48,984*

*Sinking Fund charges debited as well as interest.

(—) Denotes loss.

The city and suburban lines yielded a profit amounting to £119,943 in 1928-29, as compared with £254,225 in the previous year. The decline was due mainly to a marked diminution in the sales of electric power to outside bodies and to the payment of contributions for sinking fund not previously charged to tramway revenue.

For a number of years the receipts of the North Sydney lines have not been sufficient to cover working expenses and interest. The loss increased from £10,040 in 1922-23 to over £55,000 in 1926-27 and 1927-28, then declined to £48,984 in 1928-29.

An increase in tram fares as from 5th December, 1927, was offset by a rearrangement of the fare sections on some of the North Sydney lines in March, 1928.

While the tramways have been passing through a period of retrogression a large number of motor omnibus services have been established in the metropolitan district. Particulars of the registrations in force at various intervals, as stated on page 120, show that the number of motor omnibuses increased from 180 to 582 or more than threefold between December, 1921, and December, 1925. There was a decrease from 582 to 486 during 1926, and since that year there has been a steady expansion. During the year 1928-29 the motor omnibuses carried nearly 90 million passengers.

Tram Fares.

The tramways are divided into sections of an average length of nearly 2 miles.

From November, 1920, to December, 1927, the fares on week-days were charged at the following rates, viz., 2d. for one section and 1d. for each additional section up to 6d. for a journey of five or six sections. The rates on Sundays were higher by 1d. per journey between 1st November, 1920, and 11th February, 1923, when the extra charge was withdrawn, making the rates uniform for all days. In December, 1927, the fare for each journey extending over two, three or four sections was increased by 1d.

PRIVATE TRAMWAYS.

There is only one tramway under private control within the State, viz., a steam line, which passes through the town of Parramatta, commencing at the Park and continuing as far as the Newington Wharf at Duck River, a distance of 2 miles 66 chains. The line has been constructed to the standard gauge of 4 ft. 8½ in., and was opened in 1883.

WORKSHOPS AND ELECTRICITY WORKS.

A large number of workshops have been established to meet the requirements of the various branches of the railways and tramways. The principal locomotive and carriage shops were situated at Eveleigh, close to the Central Railway Station. On this site the workshops could not be extended to meet the increasing requirements of the railway system, and some of the buildings had to be demolished to make way for extra tracks for the suburban electric railways. Therefore a new site was selected at Chullora, 11 miles distant, and workshops are being constructed on an area of 485 acres. Some of the workshops at Chullora are in use and a new township has been erected in the vicinity. When the Chullora scheme is complete all the works at Eveleigh will be removed.

Engine repairs are undertaken at Honeysuckle Point (Newcastle) and at a number of smaller workshops in country localities. There are five large workshops—at White Bay (Sydney), Lidcombe, Newcastle, Goulburn, and Bathurst—to supply the needs of the permanent-way branch by the preparation of structural steelwork, fish-plates, tools, implements, and other articles. The principal tramway workshops are situated at Randwick, in Sydney, and there is a smaller establishment at Newcastle.

Particulars regarding the railway and tramway workshops are published in the chapter of this volume entitled *Factories*.

For the supply and distribution of electric current there are three main generating stations, viz., Ultimo and White Bay, in Sydney, and one in Newcastle. A smaller station was opened in January, 1928, at Lithgow, near the State coal mine. A number of substations are in operation throughout the suburban areas. During 1928-29 the electric energy generated at Ultimo

was 14,789,270 kilowatt hours, at White Bay 405,910,190 kilowatt hours, at Newcastle 55,967,614 kilowatt hours, and at Lithgow 1,811,190 kilowatt hours. The supply of energy to the electric railway system amounted to 115,658,827 kilowatt hours. Electric current is supplied also to a number of public bodies and factories, the amount being nearly 170 million kilowatt hours in 1927-28 and 156,700,000 kilowatt hours in 1928-29.

EMPLOYMENT AND WAGES.

The average number of persons employed on existing lines of railways and tramways during each year since 1920-21 is shown in the following statement, also the amount of salaries and wages paid:—

Year ended 30th June.	Average number of Employees.			Salaries and Wages paid.		
	Railways.	Tramways.	Total.	Railways.	Tramways.	Total.
				£	£	£
1921 ...	37,558	9,018	46,576	9,153,089	2,278,998	11,432,087
1922 ...	36,832	9,734	46,566	9,337,305	2,384,457	11,721,762
1923 ...	36,216	9,897	46,113	8,740,230	2,357,704	11,097,934
1924 ...	38,853	10,608	49,461	9,397,574	2,527,025	11,924,599
1925 ...	39,025	10,708	49,733	9,884,596	2,689,473	12,574,069
1926 ...	42,174	11,246	53,420	11,192,851	2,947,313	14,140,164
1927 ...	45,265	11,524	56,789	12,509,021	3,143,657	15,652,678
1928 ...	44,973	11,184	56,157	12,693,706	3,144,067	15,837,773
1929 ...	43,972	11,121	55,093	12,422,298	3,121,457	15,543,755

The foregoing figures are exclusive of the staff of the Construction Branch, numbering 2,146 in 1927-28, and 3,432 in 1928-29.

COAL SUPPLIES FOR RAILWAYS AND TRAMWAYS.

Coal for use in connection with the railways and tramways is an important item of working expenses, the average annual consumption being nearly 1,700,000 tons. As a result of the gradual electrification of the suburban railways the use of coal for locomotives is diminishing and the consumption for the generation of electricity is increasing. The quantity used during each of the last six years was as follows:—

Year.	Coal used in Connection with Railways and Tramways.				
	Locomotive Purposes.	Electric Power Houses.	Gas Making.	Other Purposes.	Total.
	tons.	tons.	tons.	tons.	tons.
1923-24	1,150,526	219,414	9,425	46,681	1,426,046
1924-25	1,263,176	243,385	8,661	48,195	1,563,417
1925-26	1,342,280	273,244	6,908	46,455	1,668,887
1926-27	1,342,034	326,885	7,437	46,219	1,722,575
1927-28	1,267,823	384,637	7,630	43,946	1,704,036
1928-29	1,212,272	391,904	7,038	45,719	1,656,933

A coal-mine at Lithgow, on the main Western line, is worked by the Railway Commissioners to supply coal for the railways. The output during the year 1928-29 was 488,975 tons, as compared with 390,981 tons in the previous year.

RAILWAY AND TRAMWAY ACCIDENTS.

All accidents are recorded which occur in the working of the railways and tramways, or on railway or tramway premises, to persons other than servants of the Department, however slight the injuries may be. In the case of employees of the Department all accidents must be reported which cause the employee to be absent from his ordinary work for at least five hours on any of the three days immediately following the day on which the accident occurred.

The railway and tramway accidents during each year of the quinquennium ended 30th June, 1929, are shown in the following table:—

Year ended 30th June.	Passengers.		Employees.		Others.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
<i>Railway Accidents.</i>								
1925 ...	5	279	34	5,382	35	213	74	5,874
1926 ...	14	271	32	6,506	41	204	87	6,981
1927 ...	41	298	46	7,702	48	250	135	8,250
1928 ...	10	255	30	6,633	50	293	90	7,181
1929 ...	9	269	38	6,757	39	289	86	7,315
<i>Tramway Accidents.</i>								
1925 ...	11	451	3	1,084	23	338	37	1,873
1926 ...	10	366	4	1,186	25	419	39	1,971
1927 ...	8	405	3	1,537	19	417	30	2,359
1928 ...	6	356	3	1,398	30	375	39	2,129
1929 ...	7	275	5	1,287	22	326	34	1,888

The deaths of eighteen railway employees and three tramway employees included in the figures for the year 1928-29 were results of accidents not connected with the movement of the railway or tramway vehicles. The majority of injuries to employees occurred in similar accidents, the number so injured in 1928-29, being 6,459 in the railway service and 1,025 in the tramway service.

The number of passengers carried on the railways during the year ended June, 1929, was 151,116,086, and on the tramways 333,476,049. The accident rates per million passengers were as follows:—Railways: Killed 0.06, injured 1.78. Tramways: Killed 0.02, injured 0.82. The higher rates for the railways are due mainly to the greater length of the average journey travelled by railway passengers.

The amount of compensation paid in respect of injuries to passengers and damage to goods during each of the last five years was as follows:—

Accidents.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Railway--	£	£	£	£	£
Passengers ...	11,592	10,150	60,469	14,238	6,928
Goods ...	10,989	18,168	25,563	18,634	16,925
Tramway ...	33,870	27,163	24,000	26,348	17,166
Total ... £	56,451	55,481	110,032	59,220	41,019

MOTOR AND OTHER LICENSED VEHICLES.

The use of motor transport vehicles is subject to special laws and restrictions in order that the risk of accidents may be minimised and the flow of traffic regulated where necessary; also to facilitate the collection of taxes for the upkeep of roads, etc. Motor vehicles and drivers must be registered and the registrations must be renewed annually. Persons who apply for a licence to drive must pass a test as to their ability and they hold their licenses subject to the observance of the motor traffic regulations. Public vehicles, whether motor or horse-drawn, and the persons driving them must be licensed if they ply or stand in a public street for hire.

The police issue the licenses for motor vehicles and drivers, control the motor traffic, and collect the motor taxes in all parts of the State. In the Metropolitan traffic area they regulate the street traffic, vehicular and pedestrian, and supervise the registration of public vehicles. In municipalities and shires outside the Metropolitan traffic district, the local councils are authorised by the Local Government Act to control public vehicles and to enact by-laws for the regulation of street traffic. In other areas, *i.e.*, in the unincorporated portion of the western division of New South Wales, vehicles used to convey passengers for hire must be licensed under the Stage Carriages Act. The police have general authority, under the Police Offences Act, to take action against dangerous or disorderly traffic in any part of the State.

TRANSPORT BILL.

On account of the expansion of the commercial interests of New South Wales, the consequent growth of population in and around Sydney, where the trade of the State is centralised, and the rapid increase in the use of motor vehicles, the necessity has arisen for a systematic organisation of the traffic and the transport services.

Following an investigation by a traffic advisory committee appointed to report upon causes of congestion and to suggest means for improvement, a Transport Bill was introduced into Parliament in February, 1930. It provides for the appointment of trusts to control the tramway and omnibus and other transport services (except railways) in the county of Cumberland, in the Newcastle district, and in other districts, as may be proclaimed. A trust is to be constituted in each district. The first is to be appointed by the Governor for a period of three years, and thereafter representatives will be elected triennially by the councils of the municipalities and shires.

The tramways will be transferred to the trusts, and, with other transport services owned by the trusts, will be managed by a board consisting of a general manager, a chief engineer, and a chief traffic manager. The trusts will be empowered to raise loans under Government guarantee.

A Commissioner of Road Transport, charged with the general administration of the Act, will be chairman of the trusts, and of a traffic advisory committee. He will be charged also with the registration of motor vehicles, etc., and the registration fees will be available to meet costs of administration and of traffic supervision and for other special expenditure in connection with transport and traffic facilities.

REGISTRATIONS OF MOTOR VEHICLES.

Public vehicles, horse-drawn and motor, plying within the Metropolitan traffic district only are licensed under the Metropolitan Traffic Act, and other motor vehicles must be registered under the Motor Traffic Act.

The annual fees for licenses under the Metropolitan Traffic Act are as follows:—Omnibus, £2; cab, van, dray, waggon, £1; driver or conductor of a horse-drawn vehicle, 5s., or of a motor vehicle, 10s.. The annual fees under the Motor Traffic Act are:—Motor cycle, 2s. 6d.; other motor vehicle, £1; driver, 10s.; motor cycle rider, 5s. For a learner's permit to drive 5s. is charged.

The maximum fee which may be charged by local councils in respect of the license of a public vehicle is £1 per annum, and for a driver's license 5s. per annum.

A comparative statement of the number of motor vehicles on the register at various dates is shown below. The figures in the table do not represent the total number of motor omnibuses nor of taxi-cabs as those plying outside or beyond the Metropolitan traffic district are registered as motor cars under the Motor Traffic Act.

Date.		Registrations in force.									
		Public vehicles plying within Metropolitan Traffic District only.			Other Motor Vehicles.			All Motor vehicles.	Per 100 of population.		
		Cab.	Van.	Omnibus.	Car.	Lorry.	Cycle.		Cars only	All motor vehicles.	
1911	31st Dec.	175	3	4	3,975			2,788	6,945	0.23	0.41
1916	"	268	32	12	14,175	845	7,070	22,402	44,443	0.75	1.19
1921	"	407	876	180	28,665	3,524	11,291	44,443	52,676	1.35	2.09
1922	"	419	579	308	34,762	4,465	12,143	52,676		1.60	2.42
1923	"	416	1,090	410	46,427	7,626	14,345	70,314		2.10	3.18
1924	"	445	1,461	568	62,471	11,970	18,112	95,027		2.77	4.21
1925	"	503	1,519	582	82,175	16,276	22,536	123,591		3.57	5.37
1926	"	779	1,723	486	104,675	22,986	25,424	156,073		4.46	6.64
1927	"	997	2,016	525	129,985	30,517	28,054	192,094		5.41	8.00
1928	31 Mar. ...	1,035	2,022	531	136,256	32,244	28,634	200,722		5.64	8.31
	30 June ...	1,100	2,047	536	141,329	33,514	29,038	207,564		5.83	8.56
	30 Sept. ...	1,147	2,088	536	147,020	35,014	29,931	215,786		6.03	8.85
	31 Dec. ...	1,173	2,126	565	155,403	37,129	30,882	227,278		6.35	9.29
1929	31 Mar. ...	1,224	2,134	591	158,864	38,180	31,028	232,021		6.46	9.44
	30 June ...	1,300	2,186	583	162,298	39,503	30,937	236,807		6.59	9.61
	30 Sept. ...	1,278	2,263	600	166,715	41,339	30,858	243,053		6.75	9.84
	31 Dec. ...	1,364	2,274	612	170,039	42,594	30,655	247,638		6.86	9.98

The figures show that there has been a remarkable development in motor transport in recent years, the number of vehicles in 1929 being more than five times and a half the number in 1921. The number of vans and lorries rose from 3,900 to 44,868, the number of motor-cars from 28,665 to 170,039, and the motor cabs in the Metropolitan area from 407 to 1,364. The annual increase was greatest in 1927 when the net addition to the number of motor vehicles was 36,021. In the following year the number rose by 35,184, then the rate of increase became much slower, and the net increase in 1929, namely, 20,260, was the lowest since 1923.

The quarterly increases in the successive quarters of 1928 were 8,628, 6,842, 8,172 and 11,542, and in 1929 they were 4,743, 4,786, 6,246 and 4,485. Excluding motor cycles the number of new motor vehicles registered was 40,234 in 1927, 37,907 in 1928, and 35,601 in 1929.

MOTOR OMNIBUS SERVICES.

The rapid expansion of motor omnibus services within the Metropolitan district is illustrated by the increase in registered vehicles from 180 in 1921 to 582 in 1925. There was a decrease in 1926, then the number began to rise again.

Particulars of the motor omnibus traffic in the metropolitan district were collected for the first time in 1929, and a summary relating to the year ended 30th June, 1929, is shown below:—

Particulars.	Year 1928-29.	Particulars.	Year 1928-29.
Licensed Omnibuses at 30th June, 1929—		Traffic during Year—	
In Service No.	480	Omnibus miles Run miles	16,911,793
In Reserve for Replacements... .. No.	92	Passengers carried—	
Carrying Capacity Persons	13,665	September quarter No.	21,162,881
Value £	519,427	December quarter No.	22,641,515
		March quarter No.	23,091,652
		June quarter No.	22,948,953
Value of other Plant and Equipment £	49,300	Total No.	89,845,001
Mileage of Routes (gross) miles	1,753	Revenue £	1,446,876
		Expenditure £	1,293,487

The number of licensed motor omnibuses at 30th June, 1929, as stated in the returns supplied by the proprietors, was 572, or only 11 less than the number on the register of the Traffic authorities. It may be assumed, therefore, that the statistics shown above furnish a fairly complete review of the motor omnibus services in the Metropolitan district.

The mileage of the routes is a gross figure, as many of the routes overlap and parts of them are included more than once. Therefore, the route mileage is not comparable with the route mileage of the tramways in which no part of a route is included more than once.

In motor omnibus accidents during 1928-29 two passengers and seven other persons were killed; 54 passengers, 68 drivers and conductors, and 36 others were injured.

The number of persons employed in connection with the motor omnibus services at 30th June, 1929, included 115 proprietors actively engaged, and the salaries paid to them during the year 1928-29 amounted to £49,825. The employees numbered 1,966, viz., 71 clerks, etc., 1,559 drivers and conductors, and 336 mechanics and garage employees; their salaries and wages amounted to £525,663.

MOTOR DRIVERS' LICENSES.

The increase in motor transport facilities is shown also by the following statement of the number of persons holding licenses to drive motor vehicles at the end of the years specified:—

Year.	Licenses in force at 31st December.					
	Public motor vehicles plying within Metropolitan Traffic District only.				Other motor vehicles.	
	Cab drivers.	Van drivers.	Omnibus.		Car drivers.	Cycle riders.
			Drivers.	Conductors.		
1911	248	9	6	9	5,517	3,323
1916	387	47	21	5	22,598	9,444
1921	627	523	441	200	52,538	16,115
1922	635	811	803	515	62,946	17,299
1923	624	1,536	1,142	903	84,465	20,319
1924	661	2,182	1,679	1,358	115,294	24,969
1925	899	2,090	2,086	1,472	147,532	28,888
1926	2,174	2,194	1,926	1,118	183,680	32,228
1927	2,087	2,401	1,065	1,756	224,575	34,267
1928	2,053	2,591	1,886	1,081	266,708	36,780
1929	1,997	2,714	2,107	1,077	297,491	36,784

The organisation of taxi-cab companies caused a notable increase in 1926 in the number of licenses issued to drivers of taxi-cabs, and there was a slow decline in later years.

The number of licenses in respect of public horse-drawn vehicles in the Metropolitan traffic district is decreasing rapidly. The licenses in force at 31st December, 1929, were:—Cabs, 75; vans, 182; cab drivers, 83; van drivers, 198. At the end of the year 1921 the following licenses were in force:—Cabs, 643; vans, 1,623; omnibuses, 8; cab drivers, 756; van drivers, 1,884; and omnibus drivers, 18.

TAXATION OF MOTOR VEHICLES.

A tax is levied on every motor vehicle and it must be paid annually by the person in whose name the vehicle is registered, when the certificate of registration is issued or renewed. Since 1st January, 1925, the rates of tax which were fixed previously in relation to horse-power have been based upon the weight of the vehicle and the type of tyre used.

Under the Motor Vehicles (Taxation) Act, 1924, as amended in 1926, the rates per $\frac{1}{2}$ cwt. imposed upon vehicles with solid tyres are as follows:—Car, 3s. 3d., lorry, 3s. 6d., omnibus, 5s. 6d. If the tyres are pneumatic, semi-pneumatic rubber, or super-resilient, the rate for a car or lorry is 2s. 9d. per $\frac{1}{2}$ cwt., and for an omnibus, 4s. 3d. per $\frac{1}{2}$ cwt. The tax on a motor cycle is 22s. 6d., or if a side car is attached £2. For tractors the rate is 3s. 6d. per $\frac{1}{2}$ cwt. up to a maximum of £15. Trailers and other motor vehicles are taxable at the rate of 3s. 6d. per $\frac{1}{2}$ cwt. Tractors, motor lorries, and other motor vehicles owned by farmers and used solely for carting the produce of their farms are taxable at half-rates. A reduction of 6d. per $\frac{1}{2}$ cwt. is allowed on vehicles of British manufacture.

The following are exempt from taxation, viz.:—Ambulance motor vehicles; those used by manufacturers or dealers for trial purposes and so much of the weight of a motor vehicle used solely for mining purposes in the Western Division of the State as exceeds 5 tons; motor vehicles owned by the council of a municipality or shire and used solely for the purposes of road construction, maintenance, or repair; trailers and motor vehicles used solely for work on farms; trailers owned by farmers and used solely for carting the produce of their farms, or owned by timber-cutters and used solely for carting their timber from forest to mill.

The net proceeds of taxes, fees, and penalties under the Motor Vehicles (Taxation) Act, the Metropolitan Traffic Act, and the Motor Traffic Act, in the two years ended June, 1926, and since 1st July, 1927, have been paid to the Main Roads Board for the maintenance and construction of roads. The total receipts under these Acts during each year since 1921, as recorded by the Police Department, are shown below:—

Year.	Metropolitan Traffic Act.	Motor Traffic Traffic Act.	Motor Vehicles Taxation Act.	Search fees and Exchange.	Total.
	£	£	£	£	£
1921	4,834	51,712	131,025	...	187,571
1922	5,418	62,673	161,874	...	229,965
1923	6,017	85,874	219,952	...	311,843
1924	6,659	117,993	300,248	...	424,900
1925	8,267	200,033	657,979	901	867,180
1926	9,120	252,939	856,354	1,647	1,120,060
1927	9,175	311,213	1,035,639	2,002	1,358,029
1928	9,621	372,260	1,246,424	2,682	1,630,987
1929	10,595	408,425	1,386,565	3,147	1,808,732

The revenue in respect of the registration of vehicles and drivers increased from £56,546 in 1921 to £419,020 in 1929. The rates of taxation in respect of motor vehicles were raised on 1st January, 1925, and the amount collected in 1929 was more than four times the tax in 1924.

TRAFFIC ACCIDENTS.

The following table shows particulars of accidents which occurred in public streets within the Metropolitan Traffic District and were reported by the police during recent years:—

Year.	Accidents in which no persons were injured.	Persons Killed or Injured in Accidents caused by—				Total Number of Persons.	
		Trams.		Motor Vehicles.			
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1911	963	10	633	5	130	28	1,212
1921	1,199	10	318	36	792	62	1,616
1922	1,878	12	556	48	1,071	76	1,972
1923	2,781	7	294	58	1,443	89	2,368
1924	4,396	9	318	63	2,128	88	3,130
1925	6,054	20	289	89	2,510	118	3,317
1926	7,360	11	303	144	3,660	187	4,861
1927	8,029	17	339	157	4,443	206	5,644
1928	9,399	9	415	185	5,612	212	6,881
1929	10,864	10	374	239	6,243	272	7,299

The number of persons killed or injured in tram accidents, as shown above, does not include accidents due to persons getting on or off trams in motion.

During the year 1929 the motor accidents reported by the police in localities outside the Metropolitan traffic district numbered 2,689. In such accidents 176 persons were killed and 1,687 were injured.

AVIATION.

Civil aviation in Australia is subject to the Air Navigation Act, 1920, which authorises the Governor-General of the Commonwealth to make regulations to control air navigation, applying the principles of the Convention for the Regulation of Aerial Navigation signed in Paris on 13th October, 1919.

The Federal Government has surveyed routes and established landing places in various parts of Australia, and subsidises private aerial services. In New South Wales aerial mails are carried under a contract for a service between Cootamundra and Adelaide via Mildura in Victoria and Hay and Narrandera in New South Wales, with branch services between Hay and Melbourne via Deniliquin and Echuca, and between Broken Hill and Mildura. A daily service to carry mails and passengers between Sydney and Brisbane was commenced in January, 1930.

Particulars relating to aircraft in each of the five years ended June, 1929, are shown below. The figures refer only to aircraft registered in New South Wales and owing to the extension of interstate flying they do not cover all the aviation which has taken place within its boundaries:—

Particulars:	Year ended 30th June.				
	1925.	1926.	1927.	1928.	1929.
Companies or persons owning aircraft ...	4	4	10	14	39
Aeroplanes ...	5	6	12	18	53
Staff employed—Pilots ...	...	3	5	11	}
Others ...	3	2	6	11	
Flights—Number ...	721	347	5,913	35,829	51,301
Hours ...	277	201	1,726	5,470	10,480
Mileage (approximate) ...	19,915	13,742	120,740	375,055	758,246
Passengers carried ...	1,073	411	5,358	20,995	29,110
Accidents—Persons killed...	2	...	...	...	3
Persons injured ...	...	...	1	...	6

* Not available.

The number of licensed pilots in June, 1929, was 141, viz., private 96, commercial, 45. It is evident that the great majority of the flights are pleasure trips of short duration, the average time being 12½ minutes and the average length 14½ miles per flight in 1928-29.

The Australian Aero Club in Sydney has been established for the advancement of civil aviation. Facilities for training are provided, and efforts are being made to reduce the cost of aircraft in order to popularise this method of transport for business and other purposes.

POSTS AND TELEGRAPHS

The postal, telegraph, and telephone services of New South Wales have been controlled by the Commonwealth Government since 1st March, 1901. The services are administered by a Minister of the Crown, with a permanent salaried officer in charge of the central executive office, and a deputy in each State.

POSTAL SERVICES.

Post offices have been established throughout the State, even in localities where there are few residents. If the volume of business does not warrant the establishment of a full service, receiving offices are opened for the collection of mail matter for conveyance to and from the nearest post office. The transport of mails in outlying districts has been expedited considerably in recent years by reason of an extended use of motor vehicles and by a few aerial services. The number of inland mail services in operation in New South Wales in 1928-29 was 2,129. The cost of road services amounted to £311,120, and of railway services to £189,729.

Ocean mail services are conducted in accordance with arrangements made between the Commonwealth Government and the steamship owners. Some of the services between Australia and the Pacific Islands are subsidised by the Commonwealth, and the Orient Steamship Company receives £130,000 per annum for a four-weekly service with Europe. Mails are conveyed along other routes at poundage rates. They are despatched at least once a fortnight to Europe, *via* Suez, and there is regular communication with America and with Eastern ports.

Particulars regarding the volume of postal business, viz., letters, newspapers and packets are not available for the years ended June, 1928 and 1929. In 1928-29 the parcels posted in New South Wales for delivery in the Commonwealth numbered 6,989,200 and 109,900 were for delivery in other countries, the number received from overseas being 203,000. The number of registered articles (other than parcels) posted in New South Wales for delivery in Australia was 2,847,514; and 209,685 were despatched to, and 252,318 were received from other countries.

Mainly for the convenience of people who reside at a distance from the trading centres, a system of value-payable parcel post has been established. The Department accepts for transmission within the Commonwealth parcels or letters sent in execution of orders, and collects from the addressees on behalf of the senders the charges due thereon. The system applies also to registered articles transmitted to or from Papua. During the year ended 30th June, 1929, the number of such articles posted in New South Wales was 313,654, and the value collected was £462,964, the revenue, including postage, commission on value, registration, and money-order commission being £38,968.

TELEGRAPHS AND CABLES.

The telegraph system embraces the whole Commonwealth. It has been extended steadily since January, 1858, when the system was opened to the public in New South Wales, and modern equipment has been installed in the chief centres to expedite the transmission of messages.

Cable communication with Europe and other countries is supplied by four main routes. One cable lands in Fremantle (Western Australia) and in Durban (South Africa); and two land in Banjoewangie (Java), viz., one from Roebuck Bay (Western Australia) and the other, which is duplicated, from Darwin (Northern Territory). The fourth route is by the Pacific Cable from Southport (Queensland), via Norfolk Island, Fiji, and Fanning Island to Bamfield (Canada). A branch cable runs from Norfolk Island to New Zealand, and there are two direct cables to New Zealand, which

land near Sydney, one at La Perouse, and the other at Bondi. Lines have been laid also between the Australian mainland and Tasmania and New Caledonia. The Pacific cables are maintained by the Governments of the United Kingdom, Canada, New Zealand, and Australia.

For cable messages to Great Britain, the ordinary rate is 2s. per word. Deferred cablegrams written in plain language and subject to a delay not exceeding twenty-four hours may be exchanged at half the ordinary rates with Great Britain and with a number of other British and foreign countries. Week-end cable letters may be transmitted between Australia and the United Kingdom and British North America, the rate to and from Great Britain being 12s. 6d. for twenty words and 7½d. for each additional word. Daily letter telegrams with normal delivery after 48 hours may be exchanged with a number of countries at rates which are much below the ordinary rates, the minimum charge between Australia and the United Kingdom being 15s. for twenty words and 9d. for each additional word. Special conditions, with cheap rates, have been arranged for the transmission of press messages by telegraph or cable.

The following table shows the number of telegrams despatched in New South Wales for delivery within the Commonwealth and the number despatched to and received from countries outside Australia, in various years since 1901. Messages to and from Tasmania are classified as Australian telegrams and not as cablegrams. The total number of telegrams handled in New South Wales cannot be stated, as full particulars are not available regarding messages received from other States nor those in transit.

Year.	Telegraph Stations.	Telegrams despatched for delivery in Australia.	Cablegrams.		Revenue Received.
			Despatched.	Received.	
					£
1901	978	2,669,724	59,360	72,735	186,135
1911	1,406	4,314,252	129,809	123,910	253,398
1920-21	2,252	5,906,243	249,705	263,482	489,805
1925-26	2,894	6,214,370	350,146	350,129	516,176
1926-27	2,985	6,090,777	357,860	360,572	503,682
1927-28	3,041	5,942,912	385,179	376,491	508,914
1928-29	3,069	5,972,606	415,813	388,093	526,508

WIRELESS TELEGRAPHY.

During the years 1912 to 1914, a chain of stations was erected around Australia by the Commonwealth to give wireless communication with shipping, three of the stations, including the Sydney station, being capable of long distance communication. The stations were controlled by the Department of the Navy during the years 1915 to 1920. In May, 1922, the commercial radio stations were transferred, under an agreement with the Federal Government, to the Amalgamated Wireless (Australasia), Limited, in which the Commonwealth has a controlling interest. The Company undertook to erect a high-power station in Australia for communication with Great Britain and Canada, where corresponding stations were to be established. In consequence of the development of the beam system the agreement was altered in 1924, and instead of high-power stations, services under the beam system have been provided. The service between Australia and Great Britain was opened on 8th April, 1927, and between Australia and Canada on 16th June, 1928. The rate for ordinary messages is 1s. 8d. per word to Great Britain, and 1s. 5½d. to Canada. Deferred messages are cheaper.

The radio traffic at Sydney Wireless Station during 1928-29 consisted of 34,590 paid messages, 571,590 words; 1,314 service messages, 14,166 words; and 3,230 weather messages, 73,074 words.

Private installations for wireless communication and for broadcasting are operated under license, but they are not permitted to engage in commercial traffic unless authorised to do so. There are nine broadcasting stations in New South Wales. A proportion of the receiving license fees collected by the Postmaster-General's Department was paid to the licensees of two of these stations until July, 1929. Then they were transferred to the control of the Department in consequence of a decision of the Federal Government to establish a National broadcasting service.

The wireless licenses issued in New South Wales during the last five years were as follows:—

Licenses.	Year ended 30th June—				
	1925.	1926.	1927.	1928.	1929.
Station—					
Coast	1	1	1	1	1
Ship	33	32	32	24	11
Land ... ..	...	...	4	4	6
Broadcasting	7	9	9	9	9
Broadcast listeners	33,785	36,309	56,995	79,931	100,798
Dealers' listening	813	472	860		
Experimental	611	309	283	266	214
Portable ... ..	...	...	5	6	6
Aircraft ... ..	...	...	...	...	1
Special ... ..	...	...	...	16	20
Total	35,250	37,132	58,189	80,257	101,066

A wireless telephone service with Great Britain was established in April, 1930.

TELEPHONES.

The telephone system was established in Sydney in 1880, and the system has been installed in a large number of country districts. In the Metropolitan district a number of automatic exchanges are in operation. Trunk lines serve a wide area of the State, and a line between Sydney and Melbourne was brought into use in 1907, and between Sydney and Brisbane in 1924. The "carrier wave" system of operating long-distance telephone traffic was introduced in September, 1925. By this means a number of conversations may be conducted simultaneously over one pair of wires.

The following table shows the growth of the telephone service in New South Wales since 1901:—

Year.	Exchanges.	Number of Lines Connected.	Public Telephones.	Telephone Instruments connected.
1901	48	9,864	72	13,778
1911	268	34,551	722	43,032
1920-21	921	74,490	1,693	96,710
1925-26	1,621	117,249	2,379	152,969
1926-27	1,740	127,784	2,555	167,301
1927-28	1,811	137,602	2,651	181,484
1928-29	1,890	146,492	2,779	193,718

The number of exchanges as stated above for 1925-26 and later years represents the number of offices with one or more lines connected. The figures for earlier years do not include offices with only one line.

The annual ground rent for an exclusive telephone service ranges from £3 in respect of exchanges where the number of subscribers' lines does not exceed 300, to £5 10s. where there are over 10,000 lines. For each effective outward call where the number of lines connected with the exchange does not exceed 300, a charge of 1d. per call is made; at other exchanges the charge is 1½d.

The telephone traffic during the year 1928-29 included 11,985,196 trunk line calls and 172,041,860 effective local calls. The latter consisted of 164,258,912 calls by subscribers, and 7,7842,948 by means of public telephones.

The revenue from trunk line traffic amounted to £472,858 representing an average of 9.47d. per call.

FINANCIAL RESULTS OF POSTAL SERVICES.

Particulars regarding the financial results of operations in the various branches of the post office in New South Wales during the year ended 30th June, 1929, are shown below:—

Branch.	Earnings.	Working Expenses.	Surplus.	Interest on Capital.	Net Profit.
	£	£	£	£	£
Postal	2,397,164	2,112,811	284,353	58,887	225,466
Telegraph	553,176	607,782	(—)54,606	55,784	(—) 110,390
Telephone	2,138,369	1,668,407	469,962	492,368	(—) 22,406
Total, All Branches...	5,088,709	4,389,000	699,709	607,039	92,670

(—) Denotes loss.

The services earned a substantial surplus over expenses in the whole Commonwealth, as well as in New South Wales, during the four years ended June, 1924, and in 1928-29. In the four years ended June, 1928, the net earnings in the Commonwealth were not sufficient to pay interest on the capital cost, though there was a net profit of £99,123 in this State in 1927-28. The earnings have been affected by reductions made in postal charges in October, 1923, and expenditure has increased owing to expansion of business, higher wages, and additional costs of maintenance.

A comparative statement of the financial results for the whole Commonwealth is shown in the following statement:—

Year. ended 30th June.	Earnings.	Working Expenses.	Surplus.	Interest on Capital.	Net Profit.
	£	£	£	£	£
1921	8,511,494	6,724,543	1,786,951	643,183	1,143,768
1925	10,074,854	9,230,630	844,224	1,086,546	(—)242,322
1926	10,802,917	9,829,065	973,852	1,259,189	(—)285,337
1927	11,650,265	10,411,508	1,238,757	1,410,818	(—)172,061
1928	12,325,082	11,028,632	1,296,450	1,527,113	(—)230,663
1929	12,933,835	11,190,467	1,743,368	1,686,844	56,524

(—) Denotes loss.

PUBLIC FINANCE.

The collection and expenditure of public moneys in New South Wales are controlled by four authorities, viz.:—(1) The Government of the State of New South Wales; (2) the Government of the Commonwealth of Australia; (3) the Municipal and Shire Councils (local governing bodies operating in defined areas); and (4) statutory bodies appointed by the Government to administer such public services as railways and tramways, water and sewerage, Sydney Harbour, irrigation, and main roads.

The governmental revenue of the State Government is derived mainly from taxes such as the income tax, stamp and probate duties, motor, betting, totalisator, and racecourse admission taxes, and fees for licenses; from the sale and leasing of its lands and forests; and from the contribution by the Commonwealth under the financial agreement of 1927. The expenditure of the State on governmental account includes the cost of such services as education, public health, hospitals, police, prisons, the State law courts, Industrial Commission and conciliation boards, navigation (in part), agriculture, and lands administration, water conservation and irrigation, local government (administration and grants), widows' pensions, care of the destitute, administration of mining, fisheries, and factory laws, and the construction of public works.

The governmental revenue of the Commonwealth Government is derived mainly from taxes, such as the customs and excise duties, income tax, land tax, estate duty, and entertainments tax. Its expenditure is mainly in connection with war and repatriation services, old age and invalid pensions, maternity allowances, naval and military defence, lighthouses, navigation (in part), quarantine, bounties on production, the control of customs, meteorological observations, assistance in marketing operations, bankruptcy law (as proclaimed in August, 1928), the maintenance of a High Court and courts of industrial arbitration.

Local governing bodies are required to levy a rate of not less than 1d. in the £1 on the unimproved capital value of lands within the areas administered by them, and, in some cases, they are empowered also to levy rates on the improved capital value. They provide minor services, such as the construction, maintenance, and lighting of streets and roads, the control and maintenance of public parks and recreation areas, the supervision of building operations, and, in some cases, the provision of water and sanitary services. In general the cost of these services is defrayed from the rates, but not infrequently charges are imposed for special services rendered.

The revenue of the statutory bodies is derived almost entirely from charges for the use of services which they administer, and all are ultimately subject to the control of the Government by which they are appointed.

Besides their ordinary governmental activities, the various Governments conduct certain business and industrial undertakings. Thus the State Government owns brickworks, monier pipe works, and metal quarries and other establishments, and many of the local governing bodies have established light and power services which are retailed to the general public.

Both State and Federal Governments have power to raise such loans as are required for their purposes, and these loans are applied to capital expenditure on works usually of a reproductive character, the interest, sinking fund, and cost of repairs and renewals to the works being paid from revenue. The Commonwealth Government, however, incurred a heavy debt for war and repatriation services, and this debt was shared in some measure by the States through the soldier settlement schemes. Arrangements made

to co-ordinate borrowing and sinking funds are described on a later page, these matters being subject to an agreement between the Commonwealth and the States. In terms of this agreement the Commonwealth took over the debts of the States on 1st July, 1929, and agreed to contribute a certain sum towards the annual interest and sinking fund charges thereon. A national debt sinking fund was established, and the management of the debts and the supervision of public borrowing were entrusted to the Australian Loan Council of representatives of the Commonwealth and each of the States.

Municipalities and shires have power under certain conditions to raise loans. In the case of a municipality the total amount of loans must not exceed 20 per cent. of the unimproved value of the ratable land in its area, and, in the case of a shire, thrice its annual income.

Of the statutory bodies referred to, the Metropolitan Water, Sewerage and Drainage Board alone has power to raise loans on its own initiative, but such loans are subject to the approval of the Governor. Authority for the raising of loans under similar conditions is conferred on Transport Trusts established under the Transport Act of 1930.

TAXATION.

The following statement shows in detail the taxation collected in New South Wales by the State Government, and the rates and charges received by local bodies, etc., during the five years ended 30th June, 1929. The Family Endowment Tax collected from employers in 1927-28 and 1928-29 for distribution to families eligible for endowment is not included.

Head of Taxation, or Charge.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
STATE.	£	£	£	£	£
Land Tax	2,569	2,667	2,870	2,744	2,870
Income Tax	4,661,852	5,392,946	7,739,627	6,382,467	7,343,049
Stamp and Probate Duties—					
Stamps	1,359,248	1,443,739	1,626,318	1,552,117	1,586,776
Betting Tickets	119,144	118,624	125,645	124,059	119,351
Probate, etc.	1,248,326	1,171,364	1,223,979	1,196,804	1,816,927
Total, Stamp Duties £	2,726,728	2,733,727	2,975,942	3,272,980	3,523,054
Motor Tax	453,226	762,306	952,481	1,130,280	1,310,565
Motor Licenses	163,156	234,880	295,434	348,706	399,888
Betting Taxes	112,944	105,644	110,957	114,527	113,127
Totalizator Tax	248,283	237,431	233,867	201,008	193,868
Racecourse Admission Tax ...	139,499	137,906	143,608	136,175	129,713
Other Licenses	223,326	240,556	243,856	615,356	535,455
Total, State Taxation £	8,731,603	9,848,075	12,698,642	12,204,243	13,551,589
LOCAL, ETC.					
Wharfage and Tonnage Rates	830,493	842,088	907,457	895,137	873,579
Fees for Registration of Dogs..	21,209	20,865	20,837	20,336	21,051
Municipal Rates*—					
City of Sydney	744,386	745,596	795,368	1,016,882	1,033,634
Suburban and Country	2,417,340	2,604,674	2,822,274	3,093,476	3,490,996
Shire Rates*	1,264,025	1,363,420	1,474,857	1,598,035	1,551,386
Water and Sewerage Rates ...	2,080,675	2,370,347	2,519,343	2,768,833	3,029,918
Total, Local Rates and Charges	£ 7,358,123	7,946,927	8,540,136	9,392,699	10,000,564
Grand Total	£ 16,089,726	17,794,999	21,238,778	21,596,942	23,552,153

* Year ended 31st December preceding; Harbour Bridge and Main Roads rates are included.

The taxation collected by the State Government in 1929-30 amounted to £13,263,791, or £5 7s. 1d. per head of population.

Part of the revenue from motor taxes and licenses is paid to the Main Roads Board, as shown on page 138.

It is not practicable to determine the amount of Federal taxation which is borne by the people of New South Wales. The amount of customs excise revenue actually collected in the State is shown on page 67 of this Year Book, but some of these taxes relate to goods consumed in other States, as there is considerable interstate movement. Similarly Federal land and income taxes paid by persons owning property and deriving income in more than one State are included in single assessments made by the Central Office, and are not allocated to the individual States. It may be assumed, however, that the average Federal taxation per head in New South Wales is not less than the average calculated on the receipts and population of the whole Commonwealth. These averages, viz., £8 19s. 11d. in 1924-25, £9 1s. 6d., £9 13s. 1d. £9 1s. 9d., £8 17s. 8d. in the succeeding years, indicate that in at least four of the last five years the Federal Government has collected more taxation in New South Wales than the State and local governing bodies combined.

Taxation per Head of Population.

The amounts in the preceding table stated in their equivalent rates per head of population, are shown below:—

Head of Taxation, or Charge.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
STATE.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Land Tax	2 ... 5	2 ... 11	3 ... 11	2 ... 2	3 ... 0
Income Tax	2 1 5	2 6 11	3 5 11	2 13 2	3 0 0
Stamp and Probate Duties—					
Stamps	0 12 1	0 12 7	0 13 10	0 13 0	0 12 11
Betting Tickets	0 1 1	0 1 0	0 1 1	0 1 3	0 1 0
Probate, etc.	0 11 1	0 10 2	0 10 5	0 13 3	0 14 10
Total, Stamp Duties ...	1 4 3	1 3 9	1 5 4	1 7 3	1 8 9
Motor Tax	0 4 0	0 6 8	0 8 1	0 9 5	0 10 8
Motor Licenses	0 1 6	0 2 1	0 2 6	0 2 11	0 3 3
Betting Taxes	0 1 0	0 0 11	0 1 0	0 1 0	0 0 11
Totalizator Tax	0 2 2	0 2 1	0 2 0	0 1 8	0 1 7
Racecourse Admission Tax ...	0 1 3	0 1 3	0 1 3	0 1 2	0 1 1
Other Licenses	0 2 0	0 2 1	0 2 1	0 5 1	0 4 5
Total, State Taxation ...	3 17 7	4 5 9	5 8 2	5 1 8	5 10 8
LOCAL, ETC.					
Wharfage and Tonnage Rates ...	0 7 6	0 7 4	0 7 9	0 7 5	0 7 2
Fees for Registration of Dogs ...	0 0 2	0 0 2	0 0 2	0 0 2	0 0 2
Municipal Rates*—					
City of Sydney	0 6 7	0 6 6	0 6 9	0 8 6	0 8 5
Suburban and Country	1 1 5	1 2 8	1 4 0	1 5 9	1 8 6
Shire Rates*	0 11 3	0 11 10	0 12 7	0 13 4	0 12 8
Water and Sewerage Rates ...	0 18 4	1 0 8	1 1 6	1 3 1	1 4 9
Total, Local Rates and Charges	3 5 3	3 9 2	3 12 9	3 18 3	4 1 8
Total, State and Local Taxation	7 2 10	7 14 11	9 0 11	8 19 11	9 12 4

* See footnote to previous table.

STATE TAXES.

State Land Tax.

Land tax is levied by the State only on the unincorporated districts of the Western Division. The rate of tax is 1d. in the £ on the unimproved value. For the purpose of assessment individual holdings are aggregated, and a statutory deduction of £240 is made from the assessed value to obtain the taxable value. The amount of land tax collected in the year ended 30th June, 1929, was £2,870.

State Income Tax.

Income tax was first levied in New South Wales as from 1st January, 1896, and it has since been levied annually with, latterly, frequent changes of incidence. Incomes are usually assessed for taxation in the year following that in which they are derived, the returns for assessment being normally made up for the twelve months ended 30th June.

The income tax law was revised in 1928, and the new Acts apply to the taxation of incomes derived in 1927-28 and following years. One of the objects of the amendments was to obtain more revenue from this source. Consequently the field of taxation was extended by reducing the statutory deduction and by repealing certain exemptions, special provisions were inserted to lessen opportunities for the avoidance of tax, and the rates in respect of the higher incomes were increased. This was offset in some cases by further concessional deductions.

In assessing the incomes of individuals for taxation under the Income Tax (Management) Act, 1928, residents are allowed a statutory deduction of £250, and absentees £50, less £1 for every £8 by which the net income exceeds £250 or £50, respectively. Thus this deduction vanishes at net incomes of £2,250 in the case of residents and £450 in the case of absentees—the net income being the assessable income less all deductions except the statutory deduction.

Other deductions include rates and taxes (except income tax) imposed by the State or a State authority, Federal land tax, contributions up to £50 to industrial unions, and to approved agricultural societies, gifts of 10s. and over to public charitable institutions in the State and to the Sydney University and affiliated colleges.

Some deductions are allowed to residents only, *e.g.*, premiums up to £50 for life assurance, annuity or fidelity guarantee; contributions up to £100 paid by a salary or wage earner, or by a taxpayer with a taxable income not exceeding £800, in respect of superannuation, or sustenance, or widows or orphans funds, or registered friendly societies; £50 for each child under 16 years of age; £50 in respect of the wife of a married taxpayer; and contributions up to £50 by unmarried taxpayers for the maintenance of dependants. Where the taxable income does not exceed £400, medical and dental expenses for the taxpayer, his family, or dependants may be deducted, also funeral expenses up to £20; and where the taxable income does not exceed £800, expenses up to £50 per child for the education of children under 18 years, if suitable facilities are not provided by the State within reasonable daily travelling distance.

In certain cases where a husband or wife derives income from a post nuptial settlement made by one to the other, the income of husband and wife may be assessed in the aggregate. Casual profits on the sale of property are included as income, unless the property had been held for a term of years, as specified in the Act. With certain exceptions the term is seven

years in the case of real property and three years in the case of personal property, profits on the sale of personal property not exceeding £200 in value and of the taxpayer's home being exempt.

Tax is levied on the net income of companies, and dividends are treated as income in the hands of the shareholders, but such taxpayers are allowed a rebate in respect of the tax paid by the companies.

The tax payable in respect of the incomes of individuals derived in the year 1927-28 was assessed at the following rates:—

The tax upon income from personal exertion, if the taxable income was less than £7,000, was calculated at the rate of 7d. per £, plus $\frac{1}{350}$ d. for each £ of taxable income. If it exceeded £7,000, the rate was 35d. per £ of the first £7,000, and 60d. per £ in excess of that sum.

The tax upon income from property, if the taxable income did not exceed £5,500 was 9d. plus $\frac{3}{350}$ d. per £ of taxable income; if over £5,500 the tax was 42d. per £ of the first £5,500 and 60d. per £ in excess of £5,500.

For assessing the tax on incomes derived in the year 1928-29 the foregoing rates were reduced by 5 per cent.

Where income is derived partly from personal exertion and partly from property the rate on the income from personal exertion is calculated as if the total taxable income had been derived from personal exertion, and the rate on the income from property as if the total had been derived from property. The minimum amount of tax is 10s.

The rate of tax applicable to income derived by individuals from the pastoral, dairying, and agricultural industries is determined under a system of averaging, the rate applied to such income being the rate chargeable in the year of assessment on an amount of taxable income equal to the taxpayer's average taxable income derived from such industries during not more than the preceding five years, including the year of assessment. It is provided, however, that where the taxable income of the fifth preceding year was more than that of the fourth preceding year, the averaging period shall commence from the next succeeding year in which the taxable income was less than in that which followed it.

The rates of tax payable by New South Wales companies are graduated according to taxable income. The scale commenced in respect of income derived in 1927-28 at a rate of 2s. in the £ if the income did not exceed £500, and increased by 1d. in the £ for each £500 until the rate was 36d. for each £ where the taxable income was £6,000 or over. The rate for foreign companies was 36d. per £. In addition there was a supertax of 3d. in the £. For the taxation of incomes derived by New South Wales companies in 1928-29 a similar scale is applied without supertax to a maximum rate of 33d. for each £ where the income exceeds £4,500. The rate for foreign companies is 33d. per £ for both years. The rate payable by mutual life assurance companies is 24d. per £.

The exemptions from income tax include the following incomes, revenues, etc., viz.:—The salaries of the State Governor, the official salaries of representatives of the Government of another country, including foreign consuls and British trade commissioners and members of their staffs temporarily resident in New South Wales (subject to certain conditions as to reciprocity, etc.); the revenues of municipal corporations and of local or public authorities; the income of mutual life assurance companies not being income from investments or rent or casual profits on the sale of property; profits of the Government Savings Bank of New South Wales; the income of

registered friendly societies and trade unions; the incomes of ecclesiastical, charitable, and educational institutions of a public character, and of trust funds for public charitable purposes; the incomes of Starr-Bowkett building societies, and of societies not carried on for the purpose of profit, established to promote the development of the resources of Australia, or for the encouragement of music, art, science or literature; pensions paid by the Federal Government under the Australian Soldiers Repatriation Act; incomes derived by individuals in 1928-29 and four succeeding years from gold mines in Australia, Papua, or New Guinea, including dividends paid by a company out of such income.

In regard to registered co-operative societies, exemption is provided also in respect of the following:—Undistributed profits; profits paid to members as rebate or bonus on business done with the society (where 90 per cent. of the society's business is done with its own members); and dividends from other societies or from incorporated companies, and interest on bonds of other societies, received by investment societies. Moreover, members of investment societies are not taxable in respect of dividends paid to them out of the non-taxable income of the society.

Tax is not levied on interest from bonds, debentures, stock and other securities issued by the State or Commonwealth Government or by the Commissioners of the Government Savings Bank of New South Wales, but provision is made in the Act whereby interest on State loans raised after a date to be proclaimed may be subject to tax.

The statistics published by the State Income Tax Commissioner since those for assessments made in 1910-11 have been very scanty, but the following data have been made available:—

Income* Assessed in year ended 30th June.	Companies.		Individuals.		Total Amount of Tax Assessed.	Net amount of Tax collected in year shown.†
	Number Assessed.	Amount of Tax Assessed.	Number Assessed.	Amount of Tax Assessed.		
		£		£	£	£
1921	2,201	2,344,043	68,599	2,472,281	4,816,324	4,399,360
1922	2,201	2,258,441	97,334	2,148,370	4,406,811	4,077,897
1923	2,236	2,326,141	101,578	2,092,461	4,418,602	4,196,228
1924	2,720	2,757,822	111,528	2,156,641	4,914,463	4,373,519
1925	3,068	3,104,151	120,557	1,970,845	5,074,996	4,661,892
1926	3,338	3,692,863	85,795	2,054,146	5,747,009	5,392,946
1927‡	3,478	4,342,248	83,775	1,788,424	6,130,672	7,739,627
1928§	3,190	4,500,000	93,238	2,000,000	6,500,000	6,382,467
1929	3,346	4,618,594	119,507	2,813,378	7,431,972	7,343,049

* Being income derived in preceding year.

† Including arrears and assessments carried over from previous year.

‡ Partly estimated.

§ Approximate.

In considering the variations in the number of assessments and the amount of tax assessed from year to year, due allowance should be made for changes in the rates and incidence of the tax of which particulars were shown in the Year Book for 1927-28.

The steep rise in the amount of tax collected in 1926-27 was due to the inclusion of a carryover of about £1,800,000 from the previous year, as well as an unusually large proportion of the 1926-27 assessments, those carried over and issued in 1927-28 being less than £170,000.

State Probate Duties.

Probate duties have been imposed as a State tax continuously since 1880. The rates of probate duty payable since 1st January, 1921, on the assessed value of estates of deceased persons have been as follow:—

Estates valued at—

Over £1,000 and under £5,000—	2 per cent. of total value.	
„ £5,000 „ £10,000—	2½ to 4½ per cent. Increasing by ½ per cent. per £1,000.	
„ £10,000 „ £20,000—	5 to 7 „ „ by ½ „	£2,000.
„ £20,000 „ £140,000—	7½ to 19 „ „ by ½ „	£5,000.
„ £140,000 „ £150,000—	19½ „	
Exceeding £150,000—	20 per cent.	

Duty at the rates specified is charged upon the whole value of the estate, but estates valued at not more than £1,000 are exempt from the tax. Half rates are levied on estates under £5,000 in value when the property passes to widows, or to legitimate children under 21 years of age.

The tax is due and payable on assessment or six months after the death of the deceased.

The dutiable value of the estate of a deceased person is the assessed value of all property of the deceased situated in New South Wales at his death; all such property disposed of by trust to take effect after his death; any gift made by him within three years of his death (inclusive of any money paid or property transferred by him without equivalent consideration other than by way of gifts for charitable or patriotic purposes); any property so disposed of that a life interest therein was reserved to deceased or that deceased reserved power to restore to himself; any gift not assumed by the donee to the entire exclusion of deceased; any property comprised in a *donatio mortis causa*; any property vested by deceased in himself and another jointly so that the beneficial interest therein passes to such other person on the death of deceased; money payable under policy of assurance on the life of deceased kept paid up by him for the benefit of a beneficiary; any annuity purchased by deceased to accrue at his death to a beneficiary; any property over which deceased at his death had general power of appointment; any property which on death of deceased passes to any other person by virtue of an agreement made by deceased to the extent which the value of the property exceeds the value of the consideration; any property which deceased has within three years of his death vested in a private company in consideration of shares or an interest in the company.

Whether deceased was domiciled in New South Wales or not at the time of his death, his estate includes every specialty debt secured to him over property in New South Wales; any shares or stocks held in any company carrying on mining or treatment of minerals, or the processes of pastoral or agricultural production in New South Wales; any shares held by deceased in any company carrying on business in New South Wales and having a share register therein where such shares are registered.

The deductions allowed are all debts actually due and owing by deceased.

Particulars of the amount of probate duty collected in each of the past five years are shown on a previous page. The number and values of estates assessed annually are shown in the chapter relating to "Private Finance" of this Year Book, and in greater detail in the Statistical Register.

State Stamp Duties.

In addition to the probate duty, stamp duty is imposed on a considerable number of legal and commercial documents, such as agreements, appointments of trustees, bank notes, betting tickets, bills of exchange and promissory notes, bills of lading, company capital, memoranda and articles of

association, and certificates of incorporation of companies, contract notes on marketable securities, conveyances of property, declarations of trust, deeds of all kinds, hire purchase agreements, leases, letters or power of attorney, insurance policies (other than life), receipts or discharges given for payments of money of £2 or more (other than wages and salaries), share certificates and transfer of shares. Certain exemptions in all cases are laid down in the Stamp Duties Act, and specifically in other statutes, notably in regard to documents of organisations not operating for profit.

The amount of stamp duty collected in each of the past five years is shown on page 132.

State Motor Taxes.

Particulars of the rates and amount of taxes on motor vehicles and fees for drivers' licenses are shown on pages 119 to 123 of this Year Book.

From 1st July, 1924, except in the year ended 30th June, 1927, when special provisions operated (as explained on page 394 of the Year Book for 1926-27), 90 per cent. of the proceeds of taxes, fees, and fines collected under the Motor Traffic Acts, the Motor Vehicle (Taxation) Acts, and the Metropolitan Traffic Acts were paid into the funds of the Main Roads Board. The remaining 10 per cent. of this revenue was credited to Consolidated Revenue Account to cover cost of collection. The amounts paid to the Main Roads Board in respect of the taxes collected in each year were as follows:—£560,467 in 1924-25, £897,664 in 1925-26, £644,278 in 1926-27, £1,330,399 in 1927-28, and £1,537,598 in 1928-29. The distribution of these taxes, as from 1st July, 1929, is subject to the provisions of the Transport Act, 1930.

State Taxes on Betting and Horse-racing.

The following table shows the total amount of taxation in connection with betting and horse-racing during each of the last ten years:—

Year ended 30th June.	Racing Clubs and Associations.	Bookmakers.	Betting Tickets Stamp Duty.	Totalisator Tax.	Racecourse Admission Tax.	Total.
	£	£	£	£	£	£
1920	60,951	32,775	87,504	222,970	...	401,200
1921	66,970	41,941	96,336	274,171	117,820	597,238
1922	65,707	44,422	106,066	281,818	155,630	653,643
1923	67,476	43,603	109,550	275,944	150,587	647,160
1924	67,941	40,789	108,688	266,893	143,013	627,324
1925	69,579	43,365	119,144	248,283	139,499	619,870
1926	65,434	40,210	118,624	237,431	137,903	599,602
1927	68,149	42,808	125,645	233,867	143,608	614,077
1928	73,136	41,391	124,059	201,008	136,175	575,769
1929	71,785	41,342	119,351	193,868	129,713	556,059

State Betting Taxes.

The Finance (Taxation) Act, 1915, and amending Acts, imposed taxes on racing clubs and associations, on bookmakers, and on betting tickets. The last-named tax is now imposed by the Stamp Duties Act, 1924.

With regard to clubs, the taxes are levied on licenses and fees received from bookmakers. The existing rates range from 50 per cent. on racecourses within 40 miles of the General Post Office, Sydney, or 20 miles from the Post Office, Newcastle, to 20 per cent. on courses outside the limits mentioned.

The taxes payable by bookmakers are regulated according to the particular courses and enclosures where operations are carried on, and vary considerably.

The Act of 1915 further provided for the imposition of a stamp duty on all betting tickets issued by bookmakers, the amount being one penny in the saddling paddock, and one-halfpenny for the other parts of the racecourse. During 1917 these rates were doubled, and in 1920 the amount on the paddock tickets was increased to threepence, but the other rates were not altered. In addition to these amounts, bookmakers are required to furnish a monthly statement showing the number of credit bets made, the duty on them being the same as if tickets had been issued.

State Totalizator Tax.

Under the Totalizator Act passed on 20th December, 1916, amended in 1919, 1920, and 1927, all registered racing clubs and associations must establish an approved totalizator. The commission to be deducted from the total amount invested by patrons is $12\frac{1}{2}$ per cent. The contribution, which must be paid to the Colonial Treasurer by clubs racing for profit, is 9 per cent. of the total payments into the machine, and by other clubs $5\frac{1}{2}$ per cent.

State Racecourse Admission Tax.

An Act enabling the Government to levy a tax on persons entering racecourses came into operation on the 1st October, 1920, and an amending Act was passed on the 31st December, 1920. The Acts apply to all racecourses within 40 miles of the General Post Office, Sydney, and a similar distance from the Newcastle Post Office. The amounts leviable are:—Twopence on the admission charge through the outside gate or into the flat, 10d. into the Leger Reserve, while into the Saddling Paddock the rate is 3s. for males, 2d. additional being charged at Randwick, and 1s. 7d. for females. If no charge is made at the outside gate the tax for the Leger and paddock enclosure is 2d. higher. Members and season ticket-holders are required to pay a tax equal to 40 per cent. on the amount of their annual subscriptions.

In order to carry out the provisions of this Act, racing clubs are compelled to furnish returns of the number of persons who paid for admission and the number of members and season-ticket holders.

State Entertainments Tax.

A tax on entertainments was imposed by the State Government as from 1st January, 1930. Entertainments for purely philanthropic objects are exempt, also race meetings taxable under the Racecourse Admission Tax Act. The entertainments tax is collected on the payments for admission at the following rates, those which do not exceed 1s. 6d. being free from taxation:—Over 1s. 6d. and under 2s., tax $\frac{1}{2}$ d.; 2s. and over, tax 1d. for the first 2s. and $\frac{1}{2}$ d. for each additional 6d.

Family Endowment Tax.

In order to provide the funds necessary for making effective the provisions of the Family Endowment Act for the payment of allowances in respect of dependent children, a tax is imposed on the amount of wages paid by employers. Employers who pay less than £150 in wages in the twelve months immediately preceding the period of assessment, and employers who are public hospitals, public benevolent or charitable institutions, are exempt from the tax, and instrumentalities of the Federal Government are not taxable. The tax is assessed on returns lodged with the State Commissioner of Taxation.

The tax was collected at a rate of 3 per cent. on wages paid from 23rd July, 1927, to 31st October of that year, then it was suspended. During this period the taxable amount of wages paid under Federal awards and agreements was 90 per cent. of the wages so paid. When the tax was reimposed as from 1st April, 1929, the rate was reduced to 2 per cent. As from 1st January, 1930, the rate was reduced to 1d. per £, and wages paid under Federal awards and agreements were exempted from the tax, also those paid under awards and agreements which contain provision for the payment of allowances for children, and the wages of Crown employees except those employed in connection with or by statutory bodies.

The net collections in 1927-28 amounted to £1,012,758, and £48,117 was outstanding at 30th June, 1928. Additional assessments amounting to £11,807 were issued in 1928-29, and the net collections amounted to £52,813, the balance outstanding at the end of the year being £8,193.

A description of the family endowment scheme is given in the chapter of this Year Book relating to Social Condition.

Unemployment Relief Tax.

An Act was passed in June, 1930, to impose a tax on incomes for the purpose of the relief of unemployment. The tax, at the rate of 3d. in the £, is payable on the total amount of income arising from employment as from 1st July, 1930, except where the employee is paid at a rate which does not exceed 30s. a week, also on income from other sources derived during the year ended 30th June, 1930. Incomes of £80 or less are exempt, also old-age, invalid, war, and widows' pensions and allowances under the Family Endowment Act, the official salaries of consuls, etc., the incomes of bodies who do not conduct business for profit or gain, and the incomes of life assurance companies except dividends taxable in the hands of shareholders. Very few deductions are allowed except the expenses actually incurred in the production of the incomes, charitable donations, and insurance premiums.

COMMONWEALTH TAXES.

Federal Land Tax.

The first direct taxation by the Federal Government was the land tax imposed in 1910. This is a graduated tax on the unimproved value of the lands in the Commonwealth. In the case of landowners who are not absentees, an amount of £5,000 is exempt from taxation, and the rate of tax is $1\frac{1}{8750}$ d. for the first £1 of value in excess of that amount, increasing uniformly to 5d. in the £ on a taxable balance of £75,000, with 9d. in the £ for every £ in excess of that amount. Absentee owners are required to pay 1d. in the £ up to £5,000, with a uniform progression from $2\frac{1}{8750}$ d. to 6d. for the next £75,000. On every £ in excess of £80,000, the rate payable is 10d. The amount of tax payable on assessments made for financial years subsequent to 1st July, 1927, was reduced by 10 per cent. of the amounts determined under the foregoing rates.

Lands exempt from taxation are those owned by a State, municipality, or other public authority, by savings banks, friendly societies, or trade unions, and those used for religious, charitable, or educational purposes, grounds owned by clubs, etc., and used for sports (except horse-racing), and pastoral lands leased from the Crown.

The latest statement issued by the Commonwealth Commissioner of Taxation shows the following particulars in respect of taxable lands in New South Wales and in the Commonwealth at 30th June, 1925:—

Heading.	New South Wales.			Commonwealth.		
	Residents.	Absentees.	Total.	Residents.	Absentees.	Total.
Unimproved value—	£	£	£	£	£	£
Town Lands	49,363,923	906,019	50,269,942	115,896,311	1,852,913	117,749,224
Country Lands	56,634,692	265,086	56,899,778	124,816,693	779,676	125,596,369
Total	105,998,615	1,171,105	107,169,720	240,713,004	2,632,589	243,345,593
Tax Assessed—						
Town Lands	639,054	8,158	647,212	1,490,911	18,792	1,509,703
Country Lands	562,181	2,995	565,176	976,567	8,402	984,969
Total	1,201,235	11,153	1,212,388	2,467,478	27,194	2,494,672
Area of Country Lands assessed	acres.	acres.	acres.	acres.	acres.	acres.
	32,700,383	143,679	32,844,062	61,025,392	575,279	61,600,671

The land tax assessed in the Commonwealth was £2,782,101 in the year 1927-28 and £2,693,466 in the following year.

Commonwealth Income Tax.

In addition to the taxation of incomes imposed by the State, the Commonwealth levies a tax which is payable by residents and absentees in respect of income derived from sources within Australia (which includes Papua). The tax was first levied as a war measure in the year ended 30th June, 1916, in respect of income derived in the previous year.

Towards the end of 1923 arrangements were made between the Commonwealth and State Governments for the collection by the State Commissioners of Taxation of the income tax payable under Commonwealth law, thus obviating the necessity for taxpayers to supply separate returns, and leading to an amalgamation of the Federal and State Taxation Departments. This arrangement was entered into in all States except Western Australia, where the Commonwealth Taxation Office collects both Federal and State taxes. Originally the Commonwealth Government contributed 60 per cent. of the working expenses of the Taxation Office in New South Wales, but this was reduced to 50 per cent. on 1st April, 1925, consequent on the raising of the Federal statutory exemption and the diminution in the number of assessments.

Returns for purposes of taxation are made up normally for the twelve months ending 30th June, and the tax is assessed and is usually payable before the next succeeding 30th June. The taxable income is the net income (*i.e.*, gross income after deducting what may broadly be described as the cost of earning it) less statutory and concessional deductions allowed by law. Resident taxpayers are allowed a statutory deduction of £300 less £1 for every £3 by which the net taxable income exceeded £300, so that the deduction gradually diminishes on successive grades of income, and vanishes when the net income exceeds £1,200. Absentees are taxed on the total income derived by them from all sources in Australia.

The concessional deductions include £50 for every child under 16 years of age maintained by a resident taxpayer; actual payments up to £100 for friendly society benefits, superannuation, etc., if the taxpayer is a salary or wage-earner, or has a taxable income not exceeding £800; premiums up to £50 for life assurance and fidelity guarantee; gifts of £1 and over to public charitable institutions, or Universities in Australia, or to public funds for war memorials, or contributions to the Department of Repatriation; donations to any public authority for research in respect of diseases of

human beings, animals, and plants, payments in calls on shares in companies mining for gold, silver, base metals, rare minerals or oil or engaged in afforestation in Australia, rates and taxes including State and Federal land taxes and State income-tax. Where the taxable income is less than £900 the deduction is allowed of fees paid to medical practitioner, hospital, nurse, or chemist in respect of the illness of the taxpayer, his wife, or children under 21 years of age, and the sum (up to £20) paid to an undertaker for funeral expenses.

Persons engaged in agricultural or rural pursuits in a district subject to the ravages of animal pests are entitled to a deduction of money expended in the purchase of wire-netting.

The incomes exempt from the tax include the revenues and funds of local governing bodies or public authorities; friendly societies; trade unions and kindred associations; religious, scientific, charitable, or public educational institutions; the income of provident, benefit, or superannuation funds established for the benefit of the employees in any business, and of funds established by any will or instrument for public charitable purposes; salaries of Governor-General, State Governors, foreign consuls, and trade commissioners of any part of the British Dominions; the revenues of agricultural, pastoral and horticultural, viticultural, stock-raising, manufacturing and other industrial societies not carried on for profit or gain, and of musical, art, scientific, and literary societies; remuneration paid by the Commonwealth or a State Government to persons domiciled outside Australia for expert advice; war pensions paid under the Australian Soldiers Repatriation Act, 1920-21; the income derived by a person from a mining property in Australia or in the Territory of New Guinea worked for the purpose of obtaining gold, or gold and copper, if gold represents at least 40 per cent. of the total output; income derived by a *bona-fide* prospector from the sale of gold-mining rights in a particular area; so much of the assessable income of co-operative societies or companies as is distributed among their shareholders as interest or dividends on shares, and rebates or bonuses made to a customer by a co-operative society or company and treated as a charge on profits.

Certain Commonwealth War Loans were issued tax free prior to 1923, but under the Taxation of Loans Act, 1923, the interest on any loan raised in Australia after 31st December, 1923, by the Commonwealth or a State or any other authority is subject to Commonwealth income tax.

As a general rule the rate of tax applied to the taxable income is calculated as if the taxable income were the average taxable amount derived in a period of at least two and not more than five years immediately preceding.

The tax payable in respect of income derived by individuals in the year ended 30th June, 1928, and assessed in the year 1928-29 was calculated according to the basic or schedule rates shown below, plus 8 per cent. of the amounts so determined. A super-tax was imposed on the incomes derived in 1928-29 where the taxable income exceeded £200, viz., 10 per cent. of tax on taxable incomes from £201 to £1,500; 15 per cent. from £1,501 to £3,000; and 20 per cent. where the taxable income exceeds £3,000.

The basic or schedule rates are as follows:—

Incomes derived from personal exertion.—For so much of the taxable income as does not exceed £7,600, the average basic rate of tax per £ is $3\frac{3}{800}$ d. on the first taxable £ increasing uniformly by $\frac{3}{800}$ d. with each additional £ of taxable income. That is, the average rate of tax is determined in accordance with the formula:—

Rate of tax = $(3 + \frac{3}{800}I)$ pence, where I is the number of £ in the taxable income.

Thus, the average basic rate of tax on an income of £400 in 4½d. in the £; on £1,000, 6½d. in the £; and on £7,600, 2s. 7½d. in the £. For so much of the taxable income as exceeds £7,600 the basic rate of tax is 5s. in the £.

Incomes derived from property.—For so much of the taxable income as does not exceed £546, the average basic rate of tax per £ is determined by the formula:—

Rate of tax = $(3 + \frac{I}{181.055})$ pence, where I is the number of £ in the taxable income.

For so much of the taxable income as exceeds £546 but does not exceed £2,000, the additional basic tax for each additional £ of taxable income above £546 increases continuously from 11.713d. for the pound sterling between £545 10s. and £546 10s. to 33.6d. for the pound sterling between £1,999 10s. and £2,000 10s.

For so much of the taxable income as exceeds £2,000 but does not exceed £6,500, the additional basic tax for each additional £ of taxable income above £2,000 increases continuously to 3s. 4d. for the pound sterling between £2,499 10s. and £2,500 10s., and to 5s. for the pound sterling between £6,499 10s. and £6,500 10s.

The basic rate of tax on every £ of taxable income over £6,500 is 5s.

Income derived from both personal exertion and property.—The average rate of tax on that part of the income derived from personal exertion is the average rate that would have been payable had the whole income been derived from personal exertion and the average rate of tax on that part of the income derived from property is the average rate that would have been payable had the whole income been derived from property.

Income of Trustee.—Where a trustee is liable to be separately assessed the rate of tax is determined as above as if one individual were liable to be separately assessed on the income concerned.

Income of Companies.—No statutory or concessional deductions are allowed to companies. The rate of tax on the taxable income is 1s. in the £, and the company is liable also to pay a tax of 1s. for every £ of interest paid or credited to any person who is an absentee in respect of debentures of the company or money lodged at interest with the company. Additional tax equal to 20 per cent. was levied in respect of the income of the year ended June, 1929.

Dividends paid by a company to a shareholder are taxable as part of the income of the individual, but where the rate of tax payable by him on income from property is less than the rate paid by the company he is entitled to a rebate of the additional amount of tax due to the inclusion of the dividends in his assessment. If on the other hand the rate of tax is not less than the rate paid by the company the taxpaying shareholder is entitled to a rebate of the tax paid by the company in respect of them.

The amount of Federal income-tax assessed in the Commonwealth in the year 1928-29 was £8,942,617, viz., £6,083,501 from individual taxpayers and £2,859,116 from companies. Particulars of the number and amount of income according to grade are shown in the annual reports of the Federal Commissioner of Taxation, the last report issued relating to the assessments of the year 1927-28.

Commonwealth Estate Duties.

The Estates Assessment Act, which came into operation on 21st December, 1914, provided for the imposition of a duty on properties of persons who died after the commencement of the Act. The rate of tax is 1 per cent. of

the value of the estate where the total value exceeds £1,000, but does not exceed £2,000, and an additional one-fifth per cent. for every thousand pounds, or part thereof, in excess of £2,000, the maximum being 15 per cent. of the value of the estate. These rates of tax have remained unchanged since the inception of the Act.

A reduction to two-thirds of the above rates is allowed if the estate is left to the widow, children, or grandchildren of the testator. Estates of persons who died on active service in the war, or as the result of injuries or diseases contracted while on active service, are exempt from the tax.

Commonwealth Entertainments Tax.

The Entertainments Tax is levied on payments for admission to almost every class of amusement. Since 15th October, 1925, the rates of tax have been two pence halfpenny when the payment for admission is two shillings and sixpence, and, if it exceeds that amount, one halfpenny for every sixpence or part of sixpence in excess thereof. Details will be found in the chapter of this book entitled "Social Condition."

STATE FINANCE.

It had been the practice for many years to keep the State Accounts on a cash basis, and the statements of revenue and expenditure included only the moneys actually deposited in or paid out of the Treasury during the year. A change of method was introduced as from 1st July, 1928, with the object of placing the accounts as far as practicable upon the income and expenditure basis, by crediting income to the accounts of the period in which it is earned or accrued and debiting the expenditure to the year in which it is incurred. At the same time the accounts of the business undertakings were separated from those relating to administrative functions with which they had been included formerly. By reason of these and other changes of which details are shown on later pages it is not practicable to compile the comparative statements of the total public revenue and expenditure which appear in earlier issues of the Year Book.

The principal accounts of the State Government relate to the Consolidated Revenue Fund, the Special Purposes (Revenue) Fund (formerly the Public Works Fund), the Closer Settlement Fund, the Special Deposits, and the General Loan Fund. There are also the accounts of the State business undertakings.

The Consolidated Revenue Fund was created by the Constitution Act. All taxes and territorial and other revenues of the Crown are paid to this fund, unless it is prescribed by statute that they are to be paid into some other fund. Subject to certain charges fixed by the Constitution Act, the fund may be appropriated by Parliament for expenditure on specific purposes, as prescribed by statute. Parliamentary appropriations may be either special or annual. A special appropriation is one which is contained in an Act which itself gives authority for the expenditure incurred on the object or function to which it relates. Annual appropriations are made each year to meet expenses of government not covered by special appropriations. Annual appropriations or balances thereof are not available for expenditure after the end of the year for which they were voted.

Prior to 30th June, 1924, the Consolidated Revenue Account embraced the whole of the receipts and expenditure on revenue account of the State Government and of the statutory bodies appointed by it, inclusive of those in connection with railways, tramways, water and sewerage works, harbours and navigation works, housing and the Government grain elevators, but exclusive of certain industrial undertakings, and of the Metropolitan Meat Industry Board.

As from 1st April, 1925, the accounts of the Metropolitan Water, Sewerage and Drainage Board were separated from the Consolidated Revenue Fund, and from 1st July, 1924, the whole or part of the revenue obtained from taxation of motor vehicles and from licenses therefor has been credited to the funds of the Main Roads Board, which came into being after that date.

As from 1st July, 1928, the accounts of the railways and tramways, the Sydney Harbour Trust, and the Hunter District Water and Sewerage works were taken out of the Consolidated Revenue Account, and the Special Purposes (Revenue) Fund was constituted within the Consolidated Revenue Fund upon the abolition of the Public Works Fund, of which particulars are shown in the 1928-29 issue of the Year Book at page 148.

The Special Purposes (Revenue) Fund provides for the special treatment of receipts derived from the sale or disposal of the assets of the State upon the principle that such receipts should be expended exclusively for capital purposes. Into this fund are paid the whole of the net proceeds of the sales of Crown lands, royalties on minerals, and 50 per cent. of the forestry receipts—less 10 per cent. for administration in regard to each of the foregoing items—also the proceeds of land sales under the Public Instruction Act, and such other sums as Parliament may direct. The moneys may be used for the payment of contributions to the sinking fund in respect of the public debt, the purchase of plant and other assets, the acquisition and improvement of lands for parks and other public purposes, the subdivision and improvement of Crown lands for sale, and contributions payable to the Railway Commissioners in respect of losses on developmental lines, in terms of the Government Railways (Amendment) Act, 1928, as shown on page 91 of this Year Book.

Another section of the Consolidated Revenue Account, viz., Collections in Aid, consists of receipts which are in payment for services rendered by a Government department, the proceeds of the sale of live stock and commodities produced at public institutions under the control of the Government, and interest earned on advances made from public funds to various authorities and individuals. These receipts are treated as a set-off against the expenditure incurred in producing them.

The Closer Settlement Fund relates to moneys used for the promotion of land settlement. Particulars of the fund are shown on page 151.

The Special Deposits Account is an account in the Treasury books for recording transactions on a number of accounts relating to sums held by or deposited with the Treasurer for store accounts, advance accounts, and moneys (not included in the consolidated revenue, general loan, or trust accounts) which the Treasurer directs to be carried to the Special Deposits Account. The funds in this account are not subject to annual appropriations by Parliament, and balances may be expended at any time subject to certain regulations and the issue of warrants.

The General Loan Account relates to the moneys which the Government has borrowed by the issue of stock, Treasury bills, and debentures under the authority of a Loan Act.

All expenditure from loan moneys must be authorised under an Appropriation Act, in the same manner as the ordinary expenditure chargeable to the general revenue. There is a restriction on the expenditure, whether from loans or from revenue, in the provisions of the Public Works Act. Under that Act the question of constructing all works estimated to cost more than £20,000, except those connected with the maintenance of railways, is referred by resolution of the Legislative Assembly to a Parliamentary Standing Committee elected by the members of each Parliament. The Committee investigates and reports to Parliament, and the Assembly decides

whether it is expedient to carry out the proposed work. If the decision be favourable, a bill based thereon must be passed before the authorisation is absolute. At the close of a financial year unapplied appropriations and balances of appropriations made by a Loan Act passed two years or longer lapse except for the payment of claims in respect of any outstanding contract or work in progress.

The Consolidated Revenue Account.

The following table shows the receipts and expenditure of the Consolidated Revenue Account during the ten years ended 30th June, 1928, that is, the last decennial period in which the account was kept on a cash basis and included the receipts and expenditure of the business undertakings.

Year ended 30th June.	Receipts.			Expenditure.		
	Governmental.	Business Undertakings.	Total.	Governmental.	Business Undertakings. †	Total.
	£	£	£	£	£	£
1919	9,411,899	14,036,267	23,448,166	9,219,299	14,014,099	23,233,398
1920	10,685,453	17,965,043	28,650,496	12,100,002	18,110,011	30,210,013
1921	13,568,535	20,462,861	34,031,396	14,014,452	20,462,440	34,476,892
1922	13,905,492	21,732,328	35,637,820	15,293,243	21,673,282	36,966,525
1923	14,384,140	21,761,804	36,145,944	14,083,671	21,258,765	35,342,436
1924	14,888,898	22,462,911	37,351,809	15,216,561	22,034,858	37,251,419
1925*	15,316,328	23,503,260	38,822,588	16,904,644	22,674,394	39,579,038
1926*	16,306,574	22,233,457	38,540,031	16,643,687	23,170,648	39,814,335
1927*	19,839,448	24,310,118	44,149,566	17,807,260	24,883,374	42,690,634
1928*	18,931,433	25,267,539	44,198,972	19,155,238	26,138,730	45,293,968

* Omitting Metropolitan Water Board since 1st April, 1925.

† Including interest chargeable on loan capital.

Under the heading Business Undertakings are included the earnings and working expenses of the New South Wales Government Railways and Tramways, the Sydney Harbour Trust, the Hunter District Water Supply and Sewerage Board, and to 31st March, 1925, of the Metropolitan Board of Water Supply and Sewerage. Under Governmental are grouped the accounts of the various Government Departments, including lands, mines, and forestry revenue and administration, services rendered, revenue and working expenses of the ports other than Sydney, of the Government grain elevators, and amounts of interest paid and received other than from business undertakings.

The following table shows the debit and credit balances of each section of the Consolidated Revenue Account during the ten years:—

Year ended 30th June.	Surplus (+) or Deficiency (—).			
	Governmental.	Business Undertakings.†	Total for Year.	Accumulated to end of Year.
	£	£	£	£
1919	(+) 192,600	(+) 22,168	(+) 214,768	(—) 244,545
1920	(—) 1,414,549	(—) 144,988	(—) 1,559,517	(—) 1,804,062
1921	(—) 445,917	(+) 421	(—) 445,496	(—) 2,249,558
1922	(—) 1,387,751	(+) 59,046	(—) 1,328,705	(—) 3,578,263
1923	(+) 300,469	(+) 503,039	(+) 803,508	(—) 2,774,755
1924	(—) 327,663	(+) 428,053	(+) 100,390	(—) 2,674,365
1925*	(—) 1,588,316	(+) 831,866	(—) 756,450	(—) 3,430,815
1926*	(—) 337,113	(—) 937,191	(—) 1,274,304	(—) 4,705,119
1927*	(+) 2,032,188	(—) 573,256	(+) 1,458,932	(—) 3,246,187
1928*	(—) 223,805	(—) 871,191	(—) 1,094,996	(—) 4,341,183†

* Omitting Metropolitan Water, Sewerage, and Drainage Board since 1st April, 1925.

† After payment of interest chargeable on loan capital.

‡ See page 147.

In addition to the accumulated deficiency of £4,341,183 shown above, a further deficiency of £582,543 in respect of business undertakings as at 30th June, 1928, was brought to account after the close of the financial year 1927-28 in a retrospective adjustment consequent upon the separation of the finances of the business undertakings from the Consolidated Revenue Fund. The total accumulated deficiency was funded by the raising of loans, in respect of which an amount of £4,274,781 was credited to Consolidated Revenue Account in 1928-29 and £648,944 in 1929-30.

The total receipts of the Consolidated Revenue Fund in the year 1928-29 amounted to £20,703,940 and the expenditure to £20,110,771, leaving a surplus of £593,169. This statement is not comparable with the "Governmental" receipts and expenditure of the previous years, as it includes many items not previously taken into account. A classification of the items of the revenue and expenditure of 1928-29 is shown below in the three sections into which the Consolidated Revenue Fund has been divided:—

Classification.	Revenue Proper.	Collections in Aid.	Special Purposes (Revenue) Fund.	Revenue.	
				Amount.	Per head of Population.
Revenue.	£	£	£	£	£ s. d.
Contribution by Commonwealth	2,856,479	...	...	2,856,479	1 3
State Taxation	11,841,136	...	...	11,841,136	4 16 9
Land Revenue	1,106,087	177,086	961,398	2,244,571	0 18 4
Receipts for Services Rendered	613,438	970,582	...	1,584,020	0 13 6
General Miscellaneous	842,606	1,142,486	192,642	2,177,734	0 17 9
Total Revenue	17,259,746	2,290,154	1,154,040	20,703,940	8 9 2
Expenditure.					
Legislative and General Administration	3,532,347	1,012,950	205,299	4,750,596	1 18 10
Maintenance of Law, Order and Public Safety	2,503,244	404,991	11,268	2,919,503	1 3 10
Regulation of Trade and Industry	74,530	53,966	1,459	129,955	0 1 1
Education	4,740,980	97,173	73,768	4,911,861	2 0 2
Encouragement of Science, Art and Research	76,502	...	500	77,002	0 0 7
Promotion of Public Health and Recreation	1,811,814	137,440	15,698	1,964,952	0 18 1
Social Amelioration	1,808,302	34,050	...	1,842,352	0 15 0
War Obligations	100,006	...	...	100,006	0 0 10
Development and Maintenance of State Resources	1,702,010	510,036	846,108	2,058,154	1 5 0
Local Government	316,842	39,548	...	356,390	0 2 11
Total Expenditure	16,666,577	2,290,154	1,154,040	20,110,771	8 4 4
Surplus	593,169	...	...	593,169	0 4 10

Taxes amounting to £11,841,136 or £4 16s. 9d. per head represented 57 per cent. of the total receipts of the Consolidated Revenue Fund in 1928-29. Particulars of the taxes on a comparative basis are shown in the table on page 132, where the figures include also motor taxes and license fees which are paid to the Main Roads Board after the deduction of a proportion—equal to 10 per cent.—to cover the cost of collection. The amount so deducted in 1928-29, viz., £172,855, was credited to the Consolidated Revenue Fund in the division, collections in aid, under the category of receipts for services rendered. An annual contribution by the Commonwealth is made in terms of the financial agreement between the Commonwealth and the States, of which details are shown on a later page. The State of New South Wales is to receive from the Commonwealth the sum of £2,917,411 per annum. The amount received in the year 1928-29 was reduced below this figure owing to the adjustment of an overpayment of £60,932 in the preceding financial year.

Land Revenue of the State.

At the establishment of responsible government in New South Wales in 1856, the control of lands was vested exclusively in the State Parliament. At that date only 7,000,000 acres had been alienated, and approximately 191,000,000 acres of land were owned by the Crown. Nearly all these lands have been made available for settlement, approximately 43,500,000 acres having been absolutely alienated, 23,200,000 acres being in course of sale on terms, and 115,200,000 acres being occupied by landholders at rental under various leasehold tenures.

Over a considerable proportion of the whole area the State has reserved to itself mineral rights, which produce a substantial income from royalties. In addition, there are approximately 6,900,000 acres of State forests and timber reserves returning revenue to the Government.

The receipts from lands, mineral resources, and forests credited to Consolidated Revenue Fund during the last three years are shown below:—

Particulars.	1926-27.	1927-28.	1928-29.			
			Revenue Proper.	Collections in Aid.	Special Purposes (Revenue) Fund.	Total Consolidated Revenue.
	£	£	£	£	£	£
Revenue from Sales—						
Principal }	1,043,388	1,102,858	{ 372,832	76,710	690,388	767,098
Interest ... .. }			{ ...	...	...	372,832
Rentals for Leases	677,960	701,967	684,840	...	...	684,840
Fees and other Receipts	78,775	82,722	19,280	66,539	...	85,819
Royalties on Minerals, Rents for Mining Leases, etc.	297,899	255,275	24,481	20,977	169,141	214,599
Forestry—Royalties, Rents, etc.	112,255	133,500	4,654	12,860	101,869	119,383
Total, Land Revenue	2,210,277	2,276,322	1,106,087	177,086	961,398	2,244,571

The receipts from the sales of land which represent principal are credited to the Special Purposes (Revenue) Fund, less a deduction of 10 per cent. treated as "Collections in Aid." The interest on deferred sales and rentals for leases of land are classified as revenue proper.

Royalties on minerals and one-half of the royalties from timber and other forestry receipts are payable to Special Purposes (Revenue) Fund, the usual deduction of 10 per cent. being credited to collections in aid. The balance of the forestry receipts are not included in the accounts of the Consolidated Revenue Fund, but are paid to a special fund and set apart for afforestation, the amount so credited in 1928-29 being £108,411 as compared with £108,777 in 1926-27 and £118,663 in 1927-28.

Royalties on minerals which constitute the principal item of mining revenue are subject to fluctuation, royalty being assessed in some cases on the profits of the mining companies and in other cases on the quantity of minerals produced. The bulk of the receipts from this source are paid in respect of coal-mining.

Receipts for Services Rendered.

The receipts for services rendered which are credited to Consolidated Revenue consist largely of "collections in aid," but a few important items are credited to revenue proper, *e.g.*, harbour and tonnage rates £206,667, fees collected by the Registrar-General £226,643, part of the receipts of the grain elevators £83,647. None of the receipts for services are payable to the Special Purposes (Revenue) Fund. The principal items of the receipts

during 1928-29 are shown below. The figures for the years 1926-27 and 1927-28 are stated also, though they are not strictly comparable with those for 1928-29.

Particulars.	1926-27.	1927-28.	1928-29.		
			Revenue Proper.	Collections in Aid.	Total Consolidated Revenue.
	£	£	£	£	£
Harbour Rates and Fees, Pilotage, etc. ...	317,161	310,184	206,667	76,111	282,778
Fees—					
Registrar-General	220,163	222,456	226,643	837	227,480
Law Courts	171,032	199,395	34,272	161,024	195,296
Valuation of Land	33,250	35,040	...	39,392	39,392
Grain Elevators—Handling Fees, etc. ...	102,788	77,064	83,647	66,269	149,916
Charge for Collection of Motor Taxes ...	124,314	148,588	...	172,855	172,855
Recoup by Federal Government of Part Cost of Taxation Department	*	*	...	59,960	59,960
Maintenance of Inmates of Public Institutions	64,835	54,293	729	62,542	63,271
Maintenance of Patients in Mental Hospitals...	85,511	96,477	...	108,996	108,996
Other	230,500	255,586	61,480	222,596	284,076
Total	1,349,554	1,399,083	613,438	970,582	1,584,020

* Credited to Special Deposits Account.

The contributions towards the maintenance of inmates in public institutions received during 1928-29 included £28,884 paid by the Government of the Commonwealth towards the maintenance of pensioners. Other contributions by the Commonwealth were £44,625 for cattle tick eradication and control, and £59,960 representing half the cost of the taxation office.

General Miscellaneous Receipts.

All items not placed under headings already shown are included in the general miscellaneous group, more than half the total amount being interest collections:—

Particulars.	1926-27.	1927-28.	1928-29.			
			Revenue Proper.	Collections in Aid.	Special Purposes (Revenue) Fund.	Total Consolidated Revenue.
	£	£	£	£	£	£
Interest Collections—						
Properties transferred to Commonwealth	171,475	171,470	315,110	...	...	315,110
Metropolitan Water Sewerage and Drainage Board—						
Advances	163,107	264,931	...	357,590	...	357,590
Capital Expenditure... ..	7,009	26,926	...	26,868	...	26,868
Country Towns Water Supply and Sewerage Works	100,399	109,469	...	126,624	...	126,624
Trust Works under Water Act, 1912...	9,280	8,462	...	9,744	...	9,744
Sydney Harbour Bridge Loan Expenditure	16,574	42,056	...	90,017	...	90,017
Fixed deposits with Banks	18,750	...	...	14,197	...	14,197
Daily credit balances with Banks ...	29,357	19,503	...	22,773	...	22,773
Advances to Returned Soldiers	63,399	59,602	...	...	...	...
Advances to Necessitous Farmers ...	18,076	7,486	...	31,860	...	31,860
Advances for Wire-netting	17,525	17,204	...	18,887	...	18,887
Capital Value of State Abattoirs	61,728	61,574	...	61,443	...	61,443
Other Interest	114,965	141,621	32,504	147,688	...	180,192
Rents of Buildings, Wharves, etc.	69,743	75,149	40,254	...	...	40,254
Fines and Forfeitures	51,695	60,414	66,363	...	...	66,363
Darling Harbour Resumed Area	81,043	69,400	65,798	...	...	65,798
Sale of products of Experiment Farms, Institutions, etc.	*	*	...	82,175	...	82,175
Repayment—Advance to Treasurer	42,449	39,990	30,204	...	...	30,204
Repayments to Credit of Votes, previous years	99,273	170,684	181,605	...	...	181,605
Transfer from Public Works Fund ... ..	...	...	...	147,840	...	147,840
Other Miscellaneous Receipts	206,309	206,487	110,768	152,620	44,802	308,190
Total	1,432,156	1,552,428	842,606	1,142,486	192,642	2,177,734

* Credited to Special Deposit Account.

The figures in the foregoing statement indicate that the miscellaneous receipts in 1928-29 included large sums for which corresponding entries were not made under the system of accounts which was in operation in the two preceding years, *e.g.*, the proceeds of the sale of the produce of the Agricultural College, experiment farms and other State institutions £82,175. The receipts in 1928-29 included also the credit balance amounting to £147,840 transferred from the Public Works Fund to the Special Purposes (Revenue) Fund. On the other hand, interest on advances to returned soldiers, paid previously to the Consolidated Revenue Fund, was credited to the Closer Settlement Fund in 1928-29.

The amount of interest received from the Commonwealth in respect of the value of transferred properties in 1928-29 was greater by £143,640 than the sum received in 1927-28. Under the financial agreement with the Commonwealth the rate of interest, formerly $3\frac{1}{2}$ per cent., was raised to 5 per cent. for 1927-28 and 1928-29, and the amount paid in the latter year represented interest at the higher rate for that year and an adjustment in respect of 1927-28. The payment of interest ceased as from 1st July, 1929, when the Commonwealth became the owner of the properties and assumed liability for debts of the State equal to the value thereof, *viz.*, £4,788,005.

Expenditure from Revenue.

The total expenditure from Consolidated Revenue Fund in 1928-29 amounted to £20,110,771, *viz.*, £16,666,577, or 82.9 per cent., from revenue proper, £2,290,154, or 11.4 per cent. from collections in aid, and £1,154,040, or 5.7 per cent. from the Special Purposes (Revenue) Fund.

A classification of the expenditure according to the functions of Government which is shown on page 147 indicates that the national system of education absorbs a larger proportion of the expenses than any other. Of a total expenditure on education amounting to £4,911,861, the cost of the State primary and secondary schools, the training of teachers and administration amounted to £4,419,106; the cost of technical education was £209,537, and of bursaries, scholarships and allowances to students £138,154.

Next in order of expenditure was the group, legislature and general administration, £4,750,596. In this group is an item, financial administration £3,773,996, of which the greater part is interest payable on loan expenditure not earning interest or earning only part of the interest charges thereon.

An amount of £3,058,154 was spent in developing and maintaining the resources of the State. The contribution from general revenue towards the loss on developmental railways, £800,000, is the largest item in this group. The expenditure on public works such as roads, bridges, harbours, water and electricity amounted to £570,237, on agricultural and pastoral resources £556,456, and on land settlement £511,549.

The expenditure in respect of law, order, and public safety, £2,919,503, included the police £1,749,676, administration of the Department of the Attorney-General and of Justice, £607,902, and prisons £300,011.

The expenditure on public health and recreation consisted mainly of the upkeep of the mental hospitals £696,292, subsidies, etc., to other hospitals £585,906, Government hospitals £200,621, the cost of the medical services £195,413, parks, etc., £86,391, and the medical inspection of school children £43,626. The items classified under the heading of social amelioration included widows' pensions £645,634, other relief to widows and the maintenance of deserted wives and children £371,235, relief of the destitute, aged and afflicted £547,913, and relief of unemployment £181,925. The last-mentioned amount does not include £119,502 advanced to local government councils for the assistance of the unemployed, these advances being repayable.

SPECIAL PURPOSES (REVENUE) FUND.

The Special Purposes (Revenue) Fund was created as from 1st July, 1928, to replace the Public Works Fund, which was formed in 1907 for similar purposes and received large contributions from revenue, though it did not form part of the Consolidated Revenue Fund. The sources of the receipts of the Special Purposes (Revenue) Fund and the purposes for which its moneys may be expended have been stated on page 145. A brief summary of the operations during 1928-29 is shown below:—

Receipts.	1928-29.	Expenditure.	1928-29.
	£		£
Land Revenues	690,388	Contributions to Sinking Fund ...	128,230
Royalties on Minerals	169,141	Purchase of Plant, etc.	107,228
Forestry Receipts	101,869	Lands for Public Purposes	54,474
Sale of Government Property	16,375	Contribution to Losses on Develop-	
Balance of Public Works Fund trans-		mental Railways	800,000
ferred... ..	147,840	Contribution to Interest on Develop-	
Other	28,427	mental Works	64,108
Total	£ 1,154,040	Total	£ 1,154,040

The receipts during 1928-29 included the balance at credit of the Public Works Fund at 30th June, 1928, viz., £147,840, of which £126,008 represented repayments to the credit of votes of previous years.

CLOSER SETTLEMENT ACCOUNT.

The Closer Settlement Fund was established under Act No. 9 of 1906. Under an amending Act which commenced as from 1st July, 1928, this fund was closed and its liabilities were transferred to a new Closer Settlement Fund, together with a further liability of £3,544,055, being the net loan expenditure as at 30th June, 1928, in respect of the settlement of returned soldiers. As implied by the name, the moneys of the fund are devoted to the promotion of settlement. Its transactions are not included in the Consolidated Revenue Fund, and it is maintained as a separate account.

The working capital of the fund is derived from loan moneys made available by the State, Parliamentary appropriations from the Consolidated Revenue Fund, assurance fees paid in respect of property under the Real Property Act, and capital and interest repaid by settlers. The expenditure from the fund consists mainly of the purchase price of estates, the cost of subdivisions and improvements, advances to returned soldiers, interest and sinking fund charges on loan moneys, sums paid in respect of assurance claims under the Real Property Act, amounts for the redemption of closer settlement debentures issued in lieu of cash payments for estates, and premiums for fire insurance in respect of improvements. The fund is charged also with costs of administration.

The receipts and expenditure of the Closer Settlement Fund during the year ended 30th June, 1929, were as follows:—

Receipts.	Amount.	Expenditure.	Amount.
	£		£
Transfer from General Loan Account of amount voted for Redemption of Debentures	650,200	Purchase of Estates and Contingent Expenses	157,211
Repayments of Principal and Interest on account of—		Advances to Returned Soldiers	29,722
Estates acquired	808,294	Subdivision of Lands for Returned Soldiers	53,705
Improvement Leases resumed, etc.	20,890	Fire Insurance Premiums	4,853
Village Lands acquired	878	Administrative Expenses	25,307
Advances to Soldiers	233,088	Interest on—	
Fire Insurance premiums	1,410	Loans—Recoup to Consolidated Revenue	590,377
Assurance Fees under Real Property Act	24,570	Purchase Money	160
Credit Balance at 30th June, 1928	48,599	Closer Settlement Debentures	100,688
		Contribution to Sinking Fund	33,773
		Redemption of Debentures	471,700
		Assurance Claims under Real Property Act	779
		Credit Balance at 30th June, 1929	319,654
Total	£ 1,787,929	Total	£ 1,787,929

The amount of debentures issued during 1928-29 was £97,300, redemptions amounted to £471,700, and the debentures and Ministerial certificates outstanding at 30th June, 1929, to £1,848,650; the net amount transferred from loans was £8,041,967; the liability in respect to soldier settlement amounted to £3,544,005; and the total liability for loans to the Closer Settlement Fund at 30th June, 1929, to £13,434,622. The credit balance at that date, £319,654, included £178,500 being the difference between the amount of £650,200 transferred from loans for the redemption of debentures and £471,700 actually expended on redemptions.

Cash Balances at 30th June, 1929.

The Audit Act provides that the Treasurer may arrange with any bank for the transaction of the general banking business of the State. The accounts are kept under the several headings which follow, and all amounts paid into any of the accounts mentioned are deemed to be "public moneys," and for interest purposes the several accounts are treated as one. The special accounts, which consist of "Supreme Court Moneys," are not controlled by the Audit Act, as they are operated on directly by the officers in charge of the Departments concerned.

The position of the Ledger Balances of the various accounts on the 30th June, 1929, is shown below:—

Head of Account.	Ledger Balances on 30th June, 1929.		
	Invested in Securities.	Cash Balances.	Total.
Credit Balances—	£	£	£
Consolidated Revenue Account .. .. .	..	526,769	526,769
Special Deposits Account	1,339,718	22,406,599	23,746,317
Special Accounts—Supreme Court Moneys .. .. .	..	958,697	958,697
Miners' Accident Relief Account	77,000	..	77,000
Closer Settlement Account .. .. .	..	319,653	319,653
London Remittance Account .. .. .	..	863,782	863,782
Government Railways and Tramways Fund .. .. .	..	306,965	306,965
Sydney Harbour Trust Fund .. .. .	..	168,595	168,595
Total Cr. £	1,416,718	25,551,060	26,967,778
Less Debit Balances—			
General Loan Account .. .. .	..	10,684,964	10,684,964
Loans Expenditure Suspense Account .. .. .	..	1,941,829	1,941,829
Advances for Departmental Working Accounts and other purposes, and advances to be recovered .. .. .	..	2,598,763	2,598,763
Grafton-Kyogle-South Brisbane Railway — Advance Account .. .. .	..	175,000	175,000
Metropolitan Water, Sewerage and Drainage Board—Advance Account .. .. .	..	6,945,000	6,945,000
Coal Purchase Suspense Account .. .. .	..	100,567	100,567
Grain Elevators Freight Suspense Account .. .. .	..	9,881	9,881
Total Debit Balances Dr.	..	22,456,004	22,456,004
Net Credit Balance Cr.	1,416,718	3,095,056	4,511,774
Deduct—Amounts not transferred to Public Accounts .. Dr.	..	579,013	579,013
Net Credit Balance in Sydney Cr.	1,416,718	2,516,043	3,932,761
Deduct—London Account Dr.	..	863,782	863,782
Net Balance Cr.	1,416,718	1,652,261	3,063,979

The cash balance on the 30th June in each of the last three years was distributed as follows:—

	1927.	1928.	1929.
	£	£	£
Sydney Cr.	1,195,482	1,082,116	2,516,043
London Cr.	988,199	1,047,573	863,782
Total Credit ...	£2,183,681	£34,543	1,652,261

ACCOUNTS OF STATE ENTERPRISES.

The principal State enterprises are those usually known as the business undertakings, viz., the railways and tramways, under the management of the Railway Commissioners, the Sydney Harbour Works under the control of the Sydney Harbour Trust, and the Metropolitan and the Hunter District

Water Supply and Sewerage Works each administered by a board. The accounts of these concerns are no longer kept in the Consolidated Revenue Account, the finances of the Hunter district water and sewerage works being transacted through a Special Deposits Account, and those of the other enterprises through separate funds. Further reference to these undertakings may be found in the chapters of this Year Book relating to "Railways and Tramways," "Shipping" as to Sydney Harbour Trust, and "Local Government" as to water and sewerage works.

In addition to these business undertakings, there are a number of other utilities and enterprises whose accounts, with a few exceptions, have been kept, on a quasi-commercial basis, separated from the Consolidated Revenue Fund, and the receipts and expenditure of these pass through the Special Deposits Account of the Treasury. Of such undertakings which were operated during 1928-29, five were classed as industrial undertakings, viz., the State metal quarries, the State brickworks, the Monier pipe works, the Building Construction Branch, and the Government Tourist Bureau and resorts. There was one undertaking of a national character, viz., the Murrumbidgee Irrigation Area. The public utilities included the State abattoirs administered by the Metropolitan Meat Industry Board, the Government dockyard at Newcastle, the Port Kembla and Burrinjuck electricity supply works, and the Government grain elevators. There are also the Observatory Hill Resumed Area undertaken as a measure of slum improvement, and the Government Insurance Office. Particulars relating to the Government Savings Bank of New South Wales and the Housing Funds, which the bank administers, are shown in later chapters of this Year Book.

The receipts and expenditure of the business undertakings during the year ended 30th June, 1929, are shown below:—

Particulars.	Railways.	Tramways.	Sydney Harbour Trust.	Water Supply and Sewerage Works.		Total Business Undertakings.
				Metro-politan.	Hunter District.	
	£	£	£	£	£	£
Capital Expenditure to 30th June, 1929	124,329,422	11,743,189	11,913,738	34,161,441	3,939,272	186,087,062
Revenue, 1928-29—						
Earnings	19,615,616	4,457,890	1,103,598	2,716,184	306,911	28,200,199
Contribution from Consolidated Revenue for Developmental Lines	800,000	...	...	...	...	800,000
Total Revenue	20,415,616	4,457,890	1,103,598	2,716,184	306,911	29,000,199
Expenditure, 1928-29—						
Working Expenses	14,978,050	3,835,044	369,037	897,370	118,855	20,198,956
Interest	6,150,000	600,000	584,000	1,453,855	168,025	8,955,880
Sinking Fund	†326,952	31,589	30,067	69,563	9,284	467,455
Total Expenditure	21,455,002	4,467,233	983,104	2,420,788	296,164	29,622,291
Net Revenue, 1928-29	*1,039,386	*9,343	120,494	295,396	10,747	*622,092

* Net Expenditure.

† To be met from Consolidated Revenue.

The interest and sinking fund charges in respect of the railways and tramways and the Sydney Harbour Trust, as shown above, are approximate amounts which are subject to alteration when the capital indebtedness of these undertakings has been determined finally. Under current legislation the railways are required to contribute a proportion of the sinking fund charges payable under the financial agreement between the Commonwealth and the States, but arrangements are being made so that the charges for the years 1928-29 and 1929-30 will be met from Consolidated Revenue. The sum of £800,000 contributed from Consolidated Revenue towards the

loss on the working and maintenance of non-paying developmental railways is the maximum amount payable in each year for this purpose; it is a charge against the Special Purposes (Revenue) Fund.

The following statement shows particulars of the financial transactions of various enterprises, other than the business undertakings, during the year 1928-29:—

Enterprise.	Loan Liability outstanding 30-6-29.	Revenue 1928-29.	Expenditure, 1928-29.			Net Revenue 1928-29.
			Working Expenses.	Interest Sinking Fund, &c.	Total.	
	£	£	£	£	£	£
Industrial Undertakings—						
State Metal Quarries ...	94,600	182,930	169,542	10,748	180,290	2,640
State Brickworks ...	...	242,062	209,577	25,668	235,245	6,817
Building Construction ...	...	437,347	420,008	7,010	427,018	10,329
State Monier Pipe Works ...	...	87,015	64,681	15,986	80,667	6,348
Government Tourist Bureau and Resorts ...	91,883	176,162	169,109	5,352	174,461	1,701
Other Enterprises—						
Metropolitan Meat Industry Board ...	1,566,766†	513,949	424,779	84,687	509,466	4,483
Government Dockyard, Newcastle ...	1,255,094§	1,111,362	1,014,389	57,029	1,071,418	39,884
Port Kembla—						
Haulage and Shipping of Coal ...	*	32,718	20,980	5,000	25,980	6,738
Electricity Supply ...	476,620	63,327	45,078	18,204	63,282	45
Burrinjuck Hydro-Electric Supply ...	736,311†	28,524	13,496	32,655	46,151	(—) 17,627
Observatory Hill Resumed Area ...	944,824	65,625	20,494	48,558	69,052	(—) 3,427
Dacey Garden Suburb ...	182,915†	19,509	9,029	9,195	18,224	1,285
Water Supply						
Broken Hill ...	539,213†	57,077	34,689	3,681	38,370	18,707
Junee ...	109,633†	13,702	7,890	5,021	12,911	791
Government Grain Elevators	3,918,550	149,916	66,144	*	*	*
Government Insurance Office	...	404,572	279,297	22,699	301,996	102,576

* Not available. (†) Total capital expenditure from Loans, Profits, &c. ‡ Includes £366,766 written off provisionally. § Includes Floating Dock in course of construction.

The expenditures of the activities classified as "industrial undertakings" and those of the Newcastle Dockyard and the Government Insurance Office include amounts equivalent to the State and Federal income taxes which would be payable if these concerns were liable to pay such taxes. These amounts were paid into the Consolidated Revenue Fund.

The Industrial Undertakings have been very profitable. In regard to the State Metal Quarries, which have been in operation since 1st September, 1911, profits amounting to £14,753 have been applied in reducing the capital, £127,695 in extending the works, £10,258 are held in reserve for works in progress, etc., and the credit balance of the Profit and Loss Accumulated Account at 30th June, 1929, was £33,881.

At the State Brickworks, capital expenditure from the funds of the undertaking to 30th June, 1929, was £144,133, repayments of capital £32,326 and reserves amounted to £39,247. The Building Construction Branch of the Public Works Department was established as an industrial undertaking on 1st October, 1913. The profits to 30th June, 1929, were £142,749, of which £26,663 were applied in the repayment of capital expenditure, £6,845 in the purchase of additional plant, and reserves amounted to £30,005, leaving a credit balance of £79,236 in Accumulated Profit and Loss Account. The State Monier Pipe and Reinforced Concrete Works were established as an industrial undertaking on 1st February, 1914. The total profits have amounted to £155,653, which have been distributed as follows:—Repayment of capital £27,068, additions to buildings and plant £38,536, reserves £71,527, the balance at 30th June, 1929, being £18,522.

The Government Tourist Bureau and Tourist Resorts were gazetted as an industrial undertakings as from 1st July, 1929. Previously their transactions

were recorded in the Special Deposits Account, and surplus earnings amounting to £132,396 were applied from that account to new works, and £305 to the repayment of capital.

Ten other industrial undertakings established in earlier years have been closed, leaving at 30th June, 1929, an unpaid loan liability of £306,676 (subject to further adjustment) and an unpaid capital liability of £58,119 to the Consolidated Revenue Fund.

The Burrinjuck Hydro Electric scheme was not fully operative in 1928-29, the first sales of electricity being in 1928. The revenue should show a substantial increase in subsequent years.

SPECIAL DEPOSITS AND SPECIAL ACCOUNTS.

The Special Deposits and Special Accounts form a very important division of the public finances, not only from the nature and volume of the transactions, but also by reason of the manner in which they are used in connection with the general finances of the State. These funds are of great assistance in the banking operations of the Government, and they form a strong reserve on which the Treasurer may draw to meet temporary requirements. Although the Audit Act provides that the funds cannot be used except for the specific purpose for which they were deposited, it has been the custom for many years to draw on the balances for overdrafts of the Consolidated Revenue Fund and Loan Accounts if required. The great bulk of the funds bear interest, whether invested or not, and the power to use them enables the Government to effect a large saving in the interest which might otherwise be charged for accommodation from the banks. The following table shows the amount of the Special Deposits and Special Accounts in each of the last twelve years:—

As at 30th June.	Amount.	As at 30th June.	Amount.	As at 30th June.	Amount.
	£		£		£
1918	5,957,608	1922	17,491,833	1926	25,069,338
1919	6,222,291	1923	18,527,873	1927	20,009,040
1920	9,848,520	1924	19,666,636	1928	22,738,617
1921	13,097,856	1925	26,001,112	1929	24,705,014

The amount at the credit of each of these funds at 30th June, 1929, was: Special Deposits Account, £23,746,317, and the Special Accounts, £958,697.

The amount of the credit of the principal accounts is shown in the following table:—

following table:—		<i>Special Deposits Accounts.</i>	£
Government Savings Bank	£	Public Trustee—Unclaimed	
Deposit Accounts	7,880,050	Balances of Intestate Estates	185,453
Advances by Commonwealth—		Sydney Harbour Bridge Rate	
Settlement of Soldiers ...	8,465,983	Account	115,274
Wheat Storage Act... ..	250,000	Forestry—Transfers under Act	
Grafton-Kyogle-South Brisbane		of 1916	61,339
Railway Working Account	48,462	Deposits lodged by Trustee	
Advance by Migration Com-		Companies	80,000
mission	149,800	Security Deposits—Workers'	
State Debt Commissioners		Compensation Act	677,968
Trust Accounts	258,311	Store Advance Accounts ...	633,973
Treasury Insurance Funds ...	952,991	Industrial Undertakings ...	403,958
Prickly Pear Destruction Fund	38,656	Sundry Working Accounts ...	215,926
Main Roads Board Funds ...	1,467,190	Sundry Deposit Account ...	680,433
Main Roads Account	133,674	Other Accounts	178,252
Liquor Act Compensation Fund	846,350		
Various other funds	22,274	Total	£23,746,317
		<i>Special Accounts.</i>	£
		£	£
Master-in-Equity Account ...	150,911	Prothonotary Account	8,863
Master-in-Lunacy Account ...	17,058	Registrar of Probates' Account	17,569
Public Trustee Account	764,296	Total	958,697

The total sum at the credit of the accounts on the 30th June, 1929, was £24,705,014, of which £1,339,718 were invested in securities; £18,589,898 were uninvested but used in advances and on public account at interest, the rates allowed ranging from 1 to 7½ per cent.; the remainder, £4,775,398, was similarly used, but without any interest allowance. In cases where interest was being paid by the Treasurer on the 30th June, 1929, the rate was 3 per cent., with the following exceptions:—

Crown Leases Security Deposit Account	...	...	5½ per cent.
Government Savings Bank of N.S.W. Account	...	...	2 to 5 „
State Debt Commissioners' Trust Account, Municipal	...	...	4 „
Council of Sydney Sinking Fund	...	...	5½ to 7½ „
Commonwealth Advance re Settlement of Returned Soldiers...	...	...	£6 7s. „
Commonwealth Advance, Wheat Storage Act	...	...	5 „
Liquor Amendment Act, Compensation Fund	...	...	2½ „
Master-in-Equity Account	...	...	1 „
Master-in-Lunacy Account	...	...	5½ „
Metropolitan Water, Sewerage, and Drainage Board Funds	...	...	4½ „
Public Trustee	...	...	2½ and 5 „
Insurance Funds	...	...	5-14062 „
Industrial Undertakings	...	...	4 „
Sydney Harbour Bridge—	...	...	5-14062 „
Municipal and Shire Rate Account	...	...	4 „
Architects' Fund	...	...	...

In some of the insurance funds interest is paid at the rate of 2½ per cent. on daily credit balances and at 5 per cent. on fixed deposits.

The funds in the custody of the State Treasurer at credit of Special Deposits and Special Accounts, were held as follows:—

Funds.				30th June, 1928.	30th June, 1929.
In Banks—				£	£
Special Deposits Account	...	...	...	21,028,649	22,395,853
Special Accounts	...	...	...	825,278	958,697
New South Wales Funded Stock	...	...	...	152,500	561,509
Deposits on Tenders	...	...	...	55,950	66,520
Security Deposits	...	...	...	636,967	677,968
Miscellaneous Securities	...	...	...	39,273	33,721
Remittances in transit	...	...	...	...	10,716
Total	...	...	...	£ 22,738,617	24,705,014

STATE LOAN FUNDS.

In recent years the moneys raised on loans, with the exception of a revenue deficiency loan in 1929, have been credited to General Loan Account. Formerly other loan accounts were in existence for short periods, but they have, in effect, been amalgamated into a combined account.

The whole of the loans outstanding, with the exception noted above, have been raised for capital expenditure on various works and services, most of which produce a sufficiently large excess of revenue over expenditure to meet the interest payments on loan capital invested in them. Prior to the year 1900 loans not credited to General Loan Account were raised for defence works, for promoting immigration, etc., and some revenue deficits were met, temporarily, by the issue of special Treasury bills. The stocks issued in this way have been repaid from revenue. The funded debt, as represented by the excess of stock, debentures, and Treasury bills sold over the amount redeemed from the foundation of the State to the end of each of the last two financial years was as follows:—

	30th June, 1918		30th June, 1919	
	£	£	£	£
Stock Debentures and Treasury Bills—				
Sold (face value)	...	437,956,250	...	451,494,998
Redeemed from Loan Accounts	181,342,307	...	181,943,916	...
Redeemed from Revenue Accounts	11,366,036	192,708,343	12,759,138	194,703,054
Funded debt outstanding (face value)	...	245,247,907	...	256,791,944

In addition to the funded debt outstanding there was at 30th June, 1928 and 1929, a substantial overdraft on the General Loan Account, also, at the earlier date, £5,351,406, representing the proceeds of stock in course of sale which had not been credited to that account. Taking these sums into consideration, the amount of debt, funded and unfunded, outstanding at the end of each of the years was as follows:—

Particulars.	30th June, 1928.	30th June, 1929.
	£	£
Funded Debt outstanding (face value)	245,247,907	256,791,944
Less stock sold and proceeds not yet credited to General Loan Account	5,351,406	...
	239,896,501	256,791,944
Plus expenditure from overdraft on General Loan Account	9,786,432	10,684,964
Public Debt Proper (funded and unfunded)* ...	249,682,933	267,476,908

* Exclusive of loan expenditure suspense and Commonwealth advances for Grafton-Kyogle-Brisbane railway, as shown on page 167.

The proceeds of the loans which were not credited to loan accounts amount to £10,562,681, being the net receipts in respect of stock of a face value of £10,462,783, of which £6,067,553 were redeemed from revenue, £4,275,180—the proceeds of a revenue deficiency loan in 1929—were credited to Consolidated Revenue Account and a sum of £120,050 had been advanced by the old Advances to Settlers' Board.

The foregoing statement and the following summary provide a reconciliation between the funded debt of New South Wales and the aggregate State loan expenditure on works and services, showing the transactions under main headings on General Loan Account and indicating the extent and nature of redemptions and conversions as well as the costs incurred in raising loans (including discount and flotation charges).

Particulars.	To 30th June, 1928.		To 30th June, 1929.	
	£	£	£	£
Public Debt (funded and unfunded)* ... ..	...	249,682,933	...	267,476,908
Loans outstanding not credited to General Loan Accounts—				
Old Loan	120,050	120,050	120,050	4,395,230
Revenue Deficiency Loan, 1929 ... ..	...	...	4,275,180	...
Total Loans outstanding which were credited to General Loan Account ... ..	...	249,562,883	...	263,081,678
Stock, &c., credited to General Loan Account and redeemed from Revenue	5,298,483	...	6,691,584	...
Amount contributed from Revenue to General Loan Account	175,838	5,474,321	175,838	6,867,422
Aggregate expenditure from Loans and Moneys which were credited to General Loan Account ... ..	...	255,037,204	...	269,949,100
Discount, flotation charges, &c., on Loans ... ..	...	10,601,943	...	11,293,811
Net Expenditure from General Loan Account on Works and Services ... ..	...	244,435,261	...	258,655,289

* See footnote to previous table.

In addition at 30th June, 1928, a sum of £129,546 and at 30th June, 1929, a sum of £1,941,829 had been expended on works and services in anticipation of appropriations from loan funds. These amounts were charged to Loan Expenditure Suspense Account and are not included above. There were outstanding also overdraft loans for the Metropolitan Water, Sewerage, and Drainage Board, viz., £6,495,000 at 30th June, 1928, and £6,945,000 at 30th June, 1929. These overdrafts, the debits on suspense account and

the overdraft on General Loan Account were all drawn against funds in the temporary possession of the Government as special deposits on which the average rate of interest was very low. As indicated on page 155 the utilisation of these funds for loan expenditure enables a large saving to be effected in the State's interest bill.

The amount of stock, etc., redeemed from revenue shown above is exclusive of repayments of loans from loan account met by (a) recoups to General Loan Account from Public Works Fund; (b) repayments made to General Loan Account on account of advances made to settlers and various public bodies; (c) proceeds paid to General Loan Account in respect of sales of lands, works, materials, etc., acquired from loans; (d) repayments of loan capital from profits earned by industrial undertakings.

Loan Expenditure.

The specific services on which the above expenditure has been incurred and the net amount expended on each to 30th June, 1929, may be classified as follows:—

	£	£
Railways and Tramways—		
Railways (including works under construction)	130,131,881	
Tramways (" " ")	12,239,932	
Water Supply and Sewerage—		142,371,813
Metropolitan	26,078,108	
Hunter District	5,175,457	
Country towns (repayable in part) ...	4,020,455	
Water Conservation and Irrigation—		35,274,020
Murrumbidgee Irrigation... ..	9,086,098	
Other (including Hydro-electric schemes) ...	4,783,523	
Navigation and Shipping—		13,869,621
Sydney Harbour Trust	11,560,047	
Navigation Works, Outports and Rivers ...	6,827,425	
Government Dockyard, Newcastle ...	1,255,094	
Various Other Undertakings—		19,642,566
Housing and Slum Improvements	1,790,003	
Homebush Public Abattoirs	1,566,766	
Grain Elevators	3,918,550	
Other Undertakings	1,050,924	
Land Settlement—		8,326,243
Closer Settlement	8,041,967	
Advances to Landholders... ..	4,640,344	
Other Land Settlement and Development ...	1,027,064	
Miscellaneous—		13,709,375
Roads, Punts and Bridges	11,713,606	
Public Buildings and Sites	8,963,920	
Darling Harbour Wharves Resumption ...	52,681	
Immigration	606,582	
Other	109,070	
		21,445,859
Services transferred to Commonwealth (repayable)...	3,965,937	
Public Works in Queensland prior to separation ...	49,855	
		4,015,792
Net expenditure on works and services from Loan Account—		
to 30th June, 1929		258,655,289

The amounts shown above represent the net expenditure after deducting repayments and recoups, and they are exclusive of loans expenditure suspense amounting to £1,941,829 at 30th June, 1929.

This statement and that which precedes it omit from account loans represented by debentures and ministerial certificates issued in part payment for estates acquired for purposes of closer settlement. These debentures and certificates, which amounted to £2,223,050 at 30th June, 1928, and to £1,848,650 at 30th June, 1929, are a liability of the Closer Settlement Fund and are additional to the loans shown above.

The following classification of the loan expenditure makes it apparent that the loan funds of the State have been invested for the most part in repro-

ductive and developmental enterprises, and that the public debt of the State is offset by valuable assets. Many of these assets are producing sufficient revenue to meet the working expenses and interest bill, while some show a surplus of profit after meeting all such charges.

	Amount. £	Per cent. of Total.
Capital represented by assets and invested in undertakings which, on the average, return full interest or equivalent service to the State	202,717,728	78.4
Capital represented by assets or invested in undertakings of a similar nature but returning only part of the interest charge	37,356,032	14.4
Capital represented by public buildings and assets which provide some community service or convenience of which the cost to the State is the interest on loan moneys expended	14,885,095	5.8
Capital not represented by material assets, but indirectly reproductive in that the expenditure contributes to the development of the State and its resources	606,582	.2
Capital written off or wholly lost	3,089,852	1.2
Total	258,655,289	100

Annual Loan Expenditure (State).

The net increase in expenditure from General Loan Account of the State and from other funds including those of statutory bodies appointed by the State Government during each of the five years ended 30th June, 1929, is shown below:—

Head of Service.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
From General Loan Fund—	£	£	£	£	£
Railways	4,246,963	6,060,259	6,229,347	8,172,114	6,325,947
Tramways	427,129	275,634	151,263	163,688	30,286
Water Supply †	1,612,912	776,281	656,919	659,980	659,457
Sewerage †	436,562	492,706	410,998	535,793	413,314
Water Conservation and Irrigation	519,069	690,268	199,496	707,634	755,378
Harbours, Rivers, Wharves, and Docks	448,539	577,395	486,756	556,011	851,270
Public Works, Buildings, etc. ...	606,391	713,337	485,416	897,267	1,260,311
Roads and Bridges ‡	750,907	972,793	1,726,420	2,558,070	3,124,075
Pastures Protection Boards, for Wire-netting	53,643	33,474	5,399	33,148	30,500
Grain Elevator and Bulk Wheat Handling	94,208	40,131	124,281	135,281	124,136
Closer Settlement* ... ..	...	850,000	494,767	...	650,200
Immigration	151,457	16,705	10,409	5,940	11,055
Advances to Settlers for financial aid	42,508	...	...	439,310	...
All Other Services	17,065	21,729	37,636	101,470	100,693
Total	9,407,353	11,520,762	11,019,107	14,965,706	14,336,622
Less Repayments to Credit of Votes not named above ...	231,667	340,280	596,837	558,087	116,594
Net Expenditure on Public Works, etc., from General Loan Account	£ 9,175,686	11,180,482	10,422,270	14,407,619	14,220,028
From Funds of Metropolitan Water Sewerage and Drainage Board—					
Water Supply	309,023	1,212,449	1,376,040	1,562,269	1,368,494
Sewerage and Drainage	76,029	428,035	567,609	844,417	1,330,430
From Funds Advanced by Commonwealth—Grafton-Kyogle-Brisbane Railway ...	...	275,275	330,589	398,593	221,828
Net Expenditure on Public Works, etc.	9,560,738	13,096,241	12,696,508	17,212,898	17,140,780

* For redemption of Closer Settlement Debentures.

† Exclusive of loan expenditure by Metropolitan Water Sewerage and Drainage Board, see next page.

‡ Including loans voted to Main Roads Board.

The amounts expended from General Loan Fund as shown under the various headings above represent the total new expenditure during the year less the amounts repaid under those headings during the year. The item "Repayment to Credit of Votes" represents the total amount of repayments under headings for which there was no expenditure during the year plus the excess repayments on items in respect of which repayments exceeded new expenditure for the year. The gross expenditure on works and services from General Loan Account (*i.e.*, the actual expenditure plus repayments in respect of amounts expended in previous years) was £12,267,350 in 1925-26, £12,700,014 in 1926-27, £15,633,605 in 1927-28, and £14,930,854 in 1928-29. The net expenditure is arrived at by deducting the amounts repaid in each year.

It is to be noted also that the amounts shown above in respect of General Loan Fund represent the net increase in expenditure debited to General Loan Account and not the actual amounts disbursed each year. Adjustments are made each year on account of loan expenditure suspense whereby the amount expended in any one year in excess of loan appropriation is voted in the following year and included in that year's votes. Thus the actual gross disbursements of the State Government and statutory bodies, irrespective of these adjustments and of repayments to credit of votes of previous years, were as follow, the years shown being those ending on 30th June:—

Service.	1925.	1926.	1927.	1928.	1929.
	£	£	£	£	£
Gross amount charged to General Loan Fund in respect of works and services.*	10,170,942	12,267,350	12,700,014	15,633,605	14,930,854
Less Loan expenditure suspense of previous year included above.	908,102	1,622,579	633,046	2,002,887	129,546
	9,231,940	10,644,771	12,066,968	13,630,718	14,801,308
Plus Loan expenditure suspense of year..	1,622,579	633,046	2,002,887	129,546	1,941,829
	10,854,519	11,277,817	14,069,855	13,760,264	16,743,137
Gross expenditure from State Loan Accounts.					
Metropolitan Water Sewerage and Drainage Board.	385,052	1,640,484	1,943,650	2,406,686	2,698,924
Commonwealth advance for Grafton-Kyogle-Brisbane Railway.	...	275,275	330,589	398,593	221,828
Grand Total (Gross)	11,239,571	12,193,576	16,344,094	16,565,543	19,663,889

* Excluding repayments to votes in respect of expenditure during the year shown.

The grand total of the foregoing table represents as nearly as may be the gross amount of loan moneys actually expended each year under State, as distinct from Federal and local authority. The figures are gross and include the total amount of advances to settlers and local bodies, irrespective of repayments. The amount of repayments to credit of previous years' votes, not deducted above, were:—£994,355 in 1924-25, £1,086,868 in 1925-26, £2,277,744 in 1926-27, and £1,225,986 in 1927-28. The amount provided by repayments in 1928-29 consisted of £681,772 to votes of previous years and

Loan Repayments Account, £29,054. Furthermore, the amounts shown include sums of £850,000 in 1925-26, £1,025,750 in 1926-27, and £650,200 in 1928-29, voted to Closer Settlement Fund for the redemption of Closer Settlement Debentures issued in previous years for the purchase of estates for closer settlement. The expenditure as shown is exclusive of re-advances from repayments to loan funds voted for the constitution of specific advance accounts such as those for closer settlement and wire-netting purchase.

The State Government's net expenditure from General Loan Account on works and services (exclusive of redemptions, conversions, and renewals of loans, and after deducting repayments to credit of votes) is shown below for the period of thirty-nine years, 1842-1880, in decennial periods from 1881 to 1920, and for the nine years ended 30th June, 1929:—

Years.	During Each Period.		Total at end of Period.	
	Amount.	Per Inhabitant.	Amount.	Per Inhabitant.
	£	£ s. d.	£	£ s. d.
1842-1880	16,316,530	41 12 2	16,316,530	21 9 11
1881-1890	27,639,022	29 8 8	43,955,552	39 3 7
1891-1900	20,515,704	16 6 8	64,471,256	47 12 1
1901-1910	26,876,468	18 0 4	91,347,724	56 11 11
1911-1920	65,228,221	35 5 8	156,575,945	75 13 5
*1921-1929	102,079,344	45 2 11	258,655,289	104 19 6

* Nine years only.

The amount of expenditure shown above is the gross expenditure from General Loan Account less amounts repaid or recouped to the credit of votes and less the amount of discount, flotation charges, etc., on loans, viz., £11,293,811 at 30th June, 1929. On other hand, the expenditure as shown has not been reduced by the amount of loans redeemed from revenue, viz., £6,691,584. A reconciliation between the public debt and the net expenditure on works and services from General Loan Account appears on page 157.

The great increase in loan expenditure since 1910 has been due partly to the diminished purchasing power of money. The principal items of loan expenditure during the last nine years were as follows:—Railways and tramways, £49,219,000 or 48.2 per cent.; water supply and sewerage works, £13,856,000 or 13.6 per cent.; water conservation and irrigation, £6,901,000 or 6.8 per cent.; roads and bridges (including the Sydney Harbour bridge), £9,885,000 or 9.7 per cent.; closer settlement (including the redemption of debentures), £6,553,000 or 6.4 per cent. The expenditure on railways during the period included the cost of electrification of suburban lines, nearly £11,500,000, and the expenditure on the city railway—nearly £5,000,000 at 30th June, 1929.

Loans Maturing.

The following statement shows the loans to be renewed or redeemed in London and Sydney during the five years commencing 1st July, 1929, at each original rate of interest.

In a number of cases the loans may be redeemed earlier than the dates shown at the option of the Government and upon notice of from three to twelve months.

Date of Maturity.	Existing Rate of Interest per cent.	Amounts repayable in—		
		London.	Sydney.	Total.
1929-30	£ s. d. 5 0 0 6 0 0	£	£ 165,040 3,175,046	£ 165,040 3,175,046
Total ... ..	...	...	3,340,086	3,340,086
1930-31	5 5 0 5 10 0	... ...	945,872 11,038,170	945,872 11,038,170
Total ... ..	...	...	11,984,042	11,984,042
1931-32	5 5 0 5 10 0	... ...	942,199 4,541,045	942,199 4,541,045
Total ... ..	...	...	5,483,244	5,483,244
1932-33	5 5 0 5 10 0 5 15 0	... ... 12,992,904	5,859,078 1,562,482 83,096	5,859,078 1,562,482 13,076,000
Total ... ..	...	12,992,904	7,504,656	20,497,560
1933-34	4 0 0 5 0 0 5 10 0 6 0 0	9,636,846 ... 2,999,000 ...	49,454 2,946,203 1,000 468,144	9,686,300 2,946,203 3,000,000 468,144
Total ... ..	...	12,635,846	3,464,801	16,100,647
Total for 5 years ... ..	...	25,628,750	31,776,829	57,405,579

Cost of Raising Loans.

Operations incidental to the issue of loans in London have been conducted on occasion by the Bank of England, but usually by the London and Westminster Bank. The former charges $\frac{1}{4}$ per cent. per £100 of stock on all loan issues, and £350 per million annually for the inscription and management of stock, including the payment of the half-yearly dividends, while the latter charges $\frac{1}{4}$ per cent. and £150 per million respectively for similar services. At 30th June, 1929, stock to the value of £22,061,959 was managed by the Bank of England, while the Westminster Bank held the remainder. In Sydney the Bank of New South Wales and the Commercial Banking Company of Sydney (Limited) transact all Government banking business. The former acts as the financial agent for the State in Victoria, and undertakes the payment of the half-yearly dividends on local debentures and funded stock. Management of the local debt is conducted through the Funded Stock Office and the Treasury directly conducts the operations connected with the issue of New South Wales Funded Stock Debentures and Treasury bills in Sydney, and none of these loans have been underwritten. However, commission is paid to recognised brokers on loan applications received from them.

Commission paid to banks for management expenses in connection with the public debt is a charge on the Consolidated Revenue Fund; expenses incurred in the negotiation of loans, such as brokerage, underwriting, printing, etc., are charged against the proceeds of the loans.

The following statement shows the charges for the negotiation of recent loans, inclusive of the accrued interest and bonuses allowed to investors. Local Debentures and Treasury Bills have not been included, as those disposed of in Sydney are usually sold at par, and little expenditure, if any, is incurred, while the securities under these headings negotiated in London are generally for short periods pending the flotation of long-dated loans. The statement includes both new loans and conversions:—

Year of Flotation.	Amount of Principal	Price of Issue per cent.	Gross Amount Raised.	Costs of Negotiation.	Net Amount Credited to General Loan Account.*	Date from which Interest Accrues.	Nominal Rate of Interest.	Year of Maturity.
Issued in London.								
1926-27	£ 4,000,000	97	£ 3,880,000	£ 73,859	£ 3,807,995	1-1-27	5	1965
"	10,995,100	99	10,885,149	158,476	10,734,914	1-7-27	5½	1957
1927-28	(a) 3,080,000	98	3,018,400	55,941	2,970,829	1-7-28	5	1975
"	7,000,000	99½	6,965,000	140,299	6,840,827	1-7-28	5½	1957
1928-29	3,212,000	98	3,147,760	49,498	3,090,634	18-1-29	5	1975
Issued in New York.								
1926-27	\$5,136,986	96½	4,944,349	154,734	4,805,553	1-2-27	5	1957
"	\$5,136,986	96½	4,944,349	143,796	4,810,225	1-4-27	5	1958
1927-28	(a) 3,955,615	90	3,560,053	14,653	3,545,400	1-5-28	4½	1956
Issued in Sydney.								
1926-27	\$13,715,156	100	13,715,156	8,034	13,707,122	\$	5½	\$
"	\$1,494,436	100	1,494,436	2,850	1,491,586	\$	5½	\$
"	200,000	99½	199,000	.....	199,000	27-1-27	5½	1942
"	50,000	98½	49,250	.....	49,250	\$	5½	1942
1927-28	1,658,876	100	1,658,876	1,817	1,657,059	\$	5½	1932 to 1942
"	62,840	100	62,840	.....	62,840	\$	5½	1932 to 1942
"	2,646,876	98½	2,607,173	7,518	2,599,655	\$	5½	1932 to 1943
"	500,000	100	500,000	.....	500,000	\$	½	1928 to 1929
1928-29	1,196,945	98½	1,179,261	2,685	1,176,305	\$	5½	1933 to 1943
"	8,609,650	100	8,609,650	27,015	8,598,619	\$	5½	1935 to 1943
"	519,800	99	514,602	1,779	512,823	\$	5½	1935 to 1942

* Allowing for adjustments from Consolidated Revenue Account and profits on exchange.
† \$25,000,000. § Various amounts at various dates. †† £5 11s. 10d. (a) Issued by Commonwealth Government.

THE PUBLIC DEBT.

Growth of Funded Debt.

The first loans raised by New South Wales were for the promotion of immigration. From 1831 to 1841 the expenses attached to immigration were met by the Land Fund, into which were paid the proceeds of land sales, but these proved insufficient for the purposes in 1841, and it became necessary to obtain additional funds.

It was, therefore, decided by the Governor to borrow on the security of the Territorial or Land Revenue, and a debenture loan of £49,000 was offered locally on the 28th December, 1841. The loan was issued during 1842 in two instalments, the nominal rates of interest being 5½d. and 4d. per cent., respectively, per diem. This was the first loan floated in Australia, as well as the first raised by an Australian Government. It was not until 1854 that a loan was placed on the London market.

The amount of public debt outstanding at the end of each year from 1842 to 1860 was published on page 423 of the Official Year Book for 1926-27. The amount of debt at the end of each subsequent year is shown on page 744 of the "Statistical Register" for 1925-26.

The Public Debt in November, 1855, when Responsible Government was proclaimed, was £1,000,800, distributed under the following heads:—

						£
Raised on the Security of Territorial Revenue—						
Immigration	...	...	...	...	...	423,000
Sydney Railway Company's Loan	...	...	...	...	...	217,500
Raised on the Security of General Revenue—						
Amount for Sydney Sewerage	...	...	...	...	...	54,900
" " Sydney Water Supply	...	...	...	...	...	28,000
" " Railways	...	...	...	...	...	256,400
" " Public Works	...	...	...	...	...	21,000
Total	...	...	...	...	...	£1,000,800

Since 1855 the Funded Debt has grown steadily by reason of the expenditure of loan funds on railways, water supply and sewerage, harbour works and other public services enumerated on a previous page.

The following table shows the amount of funded Public Debt outstanding at the end of each year named, the financial year ending on 30th June in 1895 and subsequent years:—

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1842	49,500	1880	14,903,919	1915	127,735,405
1845	97,700	1885	35,564,259	1920	152,776,082
1850	132,500	1890	48,383,333	1925	201,702,327
1855	1,000,800	1895	58,220,933	1926	209,793,012
1860	3,830,230	1900	65,332,933	1927	227,724,466†
1865	5,749,630	1905	82,321,998	1928	245,247,907
1870	9,681,130	1910	92,525,095	1929	256,791,944
1875	11,470,637				

† Excluding £10,995,100 conversion loans credited in following year.

The annual growth of the public debt cannot be traced accurately from the growth of funded debt outstanding. During recent years it has become increasingly the practice to finance loan expenditure by overdraft on the loan account against the security of special deposits which consist largely of funds made available on loan by the Commonwealth Government. In addition, since 1916, there have been in existence Closer Settlement Debentures and ministerial certificates issued in payment for some of the estates resumed for closer settlement. From time to time part of these debentures have been redeemed from loan funds.

In considering the rate of growth of the debt, attention should be paid to the effect of variations in the purchasing power of the money expended, the steady growth of population throughout the period, the economic development of the State, as measured by the growth of its wealth, income and productiveness, and the earning power of the works constructed from loan.

Furthermore, comparisons of the rate of growth of the State debt with that of other States of Australia should take into account the various distributions of governmental functions as between the State and local governments and the inclusion or non-inclusion of the capital debts of public utilities controlled by governmental authority.

Especial care should be taken in making international comparisons to make due allowance for the differing distributions of debt as between central, provincial and local governments and the existence or otherwise of reproductive assets acquired from loan funds. Superficial comparisons made without reference to these factors lead to very erroneous conclusions.

Existing Funded Debt.

The funded debt existing at 30th June, 1929, consisted of debentures and gold bonds (New York), £17,317,201; New South Wales inscribed and

PUBLIC FINANCE.

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funded stock, £216,499,006; and Commonwealth registered stock, £22,975,737. The following table shows the amounts outstanding at each rate of interest and the annual amounts payable thereon.

Nominal Interest Rate per cent.	Stock and Debentures—Funded Debt.				Annual Interest payable.
	New York.	London.	Sydney.	Total.	
£ s. d.	£	£	£	£	£
6 10 0	...	6,496,965	3,035	6,500,000	422,500
6 0 0	...	9,552,030	9,222,376	18,774,466	1,126,468
5 15 0	...	17,974,037	101,933	18,076,000	1,039,370
5 10 0	...	2,999,000	31,909,468	34,908,468	1,919,966
5 5 0	...	17,930,500	33,396,605	51,327,105	2,694,674
5 0 0	10,114,251	46,390,604	3,114,193	59,619,048	2,980,952
4 10 0	3,922,922	10,999,700	300	14,922,922	671,531
4 0 0	...	20,029,242	687,247	20,716,489	828,660
3 15 0	...	...	1,500,000	1,500,000	56,250
3 10 0	...	12,067,428	1,766,428	13,833,856	484,185
3 0 0	...	12,425,113	4,176,302	16,601,415	498,042
Matured ...	...	10,550	1,625	12,175	...
Total ...	14,037,173	156,875,259	85,879,512	256,791,944	12,722,598

Of the annual liability for interest on the funded debt outstanding at 30th June, 1929, the sum of £682,244 was payable in New York, £7,546,033 in London, and £1,494,321 in Sydney.

The whole of the loans on which the interest rate was 4 per cent or less were floated prior to 1915, mainly in London.

The dates of repayment of the funded debt extend to 1976, and the sums falling due for redemption each year vary considerably, as will be seen from the following table, which shows the latest due dates and the amount repayable in London, in New York and in Sydney:—

Due date.	Registered in—			Total.
	New York.	London.	Sydney.	
	£	£	£	£
Matured	10,550	1,625	12,175
Government ... option, 12 months' notice	7,361,771	7,361,771
1929-30	3,340,086	3,340,086
1930-31	11,984,042	11,984,042
1931-22	5,483,244	5,483,244
1932-33	...	12,992,904	7,504,556	20,497,560
1933-34	...	12,635,846	3,464,801	16,100,647
1934-35	...	4,981,162	15,969,992	20,951,154
1935-36	...	12,425,113	4,224,384	16,649,497
1936-37	903,817	903,817
1937-38	218,648	218,648
1939-30	5,001,310	5,001,310
1940-41	...	16,049,055	435,945	16,485,000
1941-42	14,065,535	14,065,535
1942-43	...	3,988,550	4,358,754	8,347,304
1943-44	915,237	915,237
1945-46	...	10,999,700	300	11,000,000
1950-51	...	12,067,428	6,072	12,073,500
1955-56	3,922,922	21,715,000	...	25,637,922
1956-57	5,054,968	...	...	5,054,968
1957-58	5,059,283	17,930,500	...	22,989,783
1962-63	...	10,392,396	107,604	10,500,000
1965-66	...	14,448,000	...	14,448,000
1975-76	...	6,237,855	...	6,237,855
Interminable	530,189	530,189
Permanent	1,200	1,500	2,700
Total ...	14,037,173	156,875,259	85,879,512	256,791,944

The amount of £7,361,771 described as "Government option" above represents funded stock amounting to £7,241,721 which has been redeemable since 1912 at the Government's option on giving twelve months' notice and £120,050 funded stock issued under the Advances to Settlers Act, 1899, which has been redeemable by the Government since 1919 on giving twelve months' notice.

The following statement shows the amount of funded debt on each register at quinquennial intervals from 1900 to 1929. Stocks are transferable normally from London to Sydney:—

As at 30th June.	Stock, Debentures and Treasury Bills Registered in—				Funded Debt.	
	London and New York.		Sydney.			
	Amount.	Proportion to Funded Debt.	Amount.	Proportion to Funded Debt.	Total.	Per head of Population.
	£	per cent.	£	per cent.	£	£ s. d.
1900	55,060,650	84.28	10,272,343	15.72	65,332,993	48 4 9
1905	64,007,550	77.75	18,314,448	22.25	82,321,998	56 12 2
1910	67,154,805	72.58	25,370,290	27.42	92,525,095	57 6 6
1915	86,167,288	67.46	41,568,117	32.54	127,735,405	67 10 11
1920	101,977,445	66.75	50,798,637	33.25	152,776,082	73 16 11
1925	136,064,505	67.45	65,637,822	32.55	201,702,327	88 14 4
1929	170,912,432*	66.55	85,879,512	33.45	256,791,944	104 4 4

* Including £14,037,173 in New York.

Formerly the State Government depended principally on the London money market for the flotation of its loans and more than 84 per cent. of the loans outstanding at 30th June, 1900, were registered in London. As the State developed, however, loanable funds became available on the local market and, despite huge borrowings by the Commonwealth Government in Australia for war purposes, the State's loan capital has been provided to an increasing extent from local resources. Thus of £191,458,951 added to the funded debt of the State between 1900 and 1929 no less than £75,607,169 or 39 per cent. were subscribed locally, and at 30th June, 1929, approximately 33½ per cent. of the outstanding funded debt was registered locally. Owing to the stringency on the London money market in the early part of 1927 the State raised two 25,000,000 dollar loans in New York, the total amount of principal being £10,273,973. In the following year the State received £3,955,615, part of the proceeds of a 50,000,000 dollar loan raised in New York by the Commonwealth.

TOTAL PUBLIC DEBT OF STATE.

The total public debt of New South Wales consists of (a) funded debt, of which details are shown above; (b) unfunded debt, viz., the debit balances on general loan account and on loan expenditure suspense account and advances by the Commonwealth Government for the construction of the Grafton-Kyogle-Brisbane Railway; and (c) the amount of debentures and ministerial certificates issued in payment for estates acquired for purposes of Closer Settlement adjusted in accordance with the balance at debit or credit of the Closer Settlement Fund.

The various items are shown below:—

Items.	30th June,	
	1928.	1929.
	£	£
(a) Funded Debt (stock, debentures and bills outstanding) ...	245,247,907	256,791,944
(b) Unfunded Debt on Loan Account—		
Debit Balance on General Loan Account	9,786,432	10,684,964
Debit Balance on Loan Expenditure Suspense Account	129,546	1,941,829
Commonwealth Advances, Grafton-Kyogle-Brisbane		
Railway	1,004,457	1,226,285
Total debt outstanding on Loan Account	256,168,342	270,645,022
Less part proceeds of loan not yet credited ...	5,351,406	...
Public Debt proper	250,816,936	270,645,022
(c) Net liability on Closer Settlement Fund*	2,174,451	1,528,996
Total Public Debt on Capital Accounts ...	252,991,387	272,174,018

* Excluding loans included above.

In addition the State had advanced to the Metropolitan Water, Sewerage and Drainage Board sums amounting to £6,495,000 at 30th June, 1928, and £6,945,000 at 30th June, 1929, which had been drawn against trust accounts on deposit with the Treasury in Sydney.

The net liability on the Closer Settlement Account as stated above represents the amount of debentures and Ministerial certificates outstanding, less the credit balance of the Closer Settlement Fund, viz., £48,599 at 30th June, 1928, and £319,654 at 30th June, 1929. The debit balances on revenue accounts are not included in the statement.

The amount accumulated at credit of sinking funds was £525,667 at 30th June, 1928, and £427,474 at 30th June, 1929, so that the net public debt on capital accounts at the respective dates was £252,465,720 and £271,746,544. The net funded debt was £244,722,240 at 30th June, 1928, and £256,364,470 at 30th June, 1929.

The amount of public debt at 30th June, 1929, as stated above, differs from the amount in the following statement of the public debt subject to the financial agreement with the Commonwealth, because the latter is exclusive of the debit balances on the loan accounts, but includes advances from the Commonwealth Government for the settlement of returned soldiers and other purposes:—

	30th June, 1929.
Funded debt (stock, debentures, and bills outstanding)	£ 256,791,944
Commonwealth advances—	
Grafton-Kyogle-Brisbane Railway	1,226,285
Settlement of Returned Soldiers	9,805,984
Construction of silos for wheat storage	250,000
Development and Migration Commission	150,320
Closer Settlement Debentures and Certificates (part)	1,751,350*
Total Public Debt (subject to financial agreement)	£269,975,883

* Excluding Debentures £97,300 not within the agreement.

On 1st July, 1929, the Commonwealth assumed ownership of certain properties transferred from the State, and in consideration therefor relieved the State of portion of its indebtedness amounting to £4,788,005. Moreover,

arrangements are being made by which the Commonwealth is to write off the sum of £1,340,000 in respect of the advances for returned soldiers' settlement. The deduction of these amounts would reduce the amount of public debt to £263,847,878.

Loans Repayable to State.

A large portion of the public debt of the State is represented by advances to various public bodies and to settlers, etc., and will eventually be repaid to the State and applied in reduction of the public debt. It is not possible to state accurately the amount of such loans outstanding, but the following statement shows the amount of expenditure debited to General Loan Account in respect of the main recoverable loans outstanding, excluding expenditure in respect of works transferred to the Commonwealth:—

Repayable Loans.	30th June,	
	1928.	1929.
	£	£
Housing Fund (in part)	870,612	845,179
Country Towns Water Supply (in part)	2,704,165	3,150,853
Country Towns sewerage (in part)	781,372	869,602
Closer Settlement	7,391,767	8,041,967
Advances to Returned Soldier Settlers	3,544,005	3,543,972
Advances to Irrigation Farmers	1,391,542	1,287,086
Other advances to Settlers	1,459,744	1,487,445

THE INTEREST BILL OF THE STATE.

The annual interest payable on the funded debt outstanding at 30th June, 1929, is quoted on page 165 at £12,722,598, which represents a full year's interest calculated on the amount of stock and debentures outstanding at each of the respective rates of interest. The amount of interest which actually accrued during the year 1928-29 in respect of the funded debt was £12,129,688. In addition, interest amounting to £1,028,569 was paid on moneys temporarily in possession of the Government—*e.g.*, special deposits used in advances, etc.—and £62,699 on bank overdrafts. Thus the total interest paid on loans, advances and overdrafts during the year amounted to £13,220,965. Of this sum £9,843,307 were charged to the railways and other activities as interest on loan capital of the current year, and £3,377,649 were charged to Consolidated Revenue Account, viz., £2,417,981 paid from Revenue Proper, £895,560 from Collections in Aid, and £64,108 from Special Purposes (Revenue) Fund as a contribution towards interest on developmental works and undertakings which do not earn full interest on loan capital.

The "collections in aid" applied to the payment of interest represent for the most part interest collected on Treasury advances to various activities or recoups for interest payments from Consolidated Revenue prior to 1st July, 1928. Thus capitalised interest in respect of the Sydney Harbour Bridge, £90,017, was recouped from Loan Account, and interest on bank overdraft, £19,876, from the funds of the Newcastle Dockyard; collections from the Metropolitan Water, Sewerage and Drainage Board consisted of interest on advances, £357,590, and interest, etc., added to capital, £26,868. With the exception of a few miscellaneous credits the other collections represented interest on the loan expenditure of the various activities.

To the extent indicated in the following statement the payments from Revenue Proper included part of the interest on the loan expenditure of

several undertakings, which for various reasons was not charged directly upon the revenues of the undertaking concerned. A distribution of the interest and sinking charges during 1928-29 is shown below.

Particulars.	Interest payable by Undertaking on Loan Capital, 1928-29.	Interest payable from Consolidated Revenue Fund.			Total Interest Payments, 1928-29.	Sinking Fund Payments, 1928-29.
		Collections in Aid (collected from various activities as under).	Revenue Proper.	Special Purposes (Revenue) Fund.		
	£	£	£	£	£	£
Railways and Tramways	7,050,000	...	...	...	7,050,000	358,718
Sydney Harbour Trust	584,000	...	...	...	584,000	30,067
Water Supply and Sewerage—						
Metropolitan	1,250,000	384,458	85,600	...	1,719,458	64,563
Hunter District	178,335	...	65,265	...	243,600	9,284
Country Towns ... ..	...	126,624	...	...	126,624	7,464
Murrumbidgee Irrigation Area	50,000	...	396,000	...	446,000	...
Main Roads Board ... ..	...	44,280	104,340	...	148,620	...
Sydney Harbour Bridge	152,889	90,017	...	...	242,906	...
Metropolitan Meat Industry Board ... ..	...	61,443	18,757	...	80,200	3,000
Government Dockyard, Newcastle ..	10,851	19,876	33,523	...	64,260	...
Housing Fund ... ..	...	39,296	...	...	39,296	...
Advances to Settlers, Necessitous Farmers, &c.	3,601	50,350	...	...	53,951	...
Closer Settlement Fund	541,671	...	...	...	541,671	33,773
Miscellaneous Activities, &c.	21,960	79,216	50,615	...	151,791	1,359
Contribution from Special Purposes (Revenue) Fund ... ..	...	...	...	64,108	64,108	128,230
Other ... ..	...	...	1,664,471	...	1,664,471	...
Total	9,843,307	895,560	2,417,981	64,108	13,220,956	636,478

The interest paid from Revenue Proper was offset to a large extent by such receipts as interest received from the Federal Government in respect of the value of properties transferred to the Commonwealth £315,120, by the surplus earnings of enterprises established with loan moneys, of which the receipts form part of the Consolidated Revenue Fund such as the Darling Harbour Resumed Area with a net revenue of £45,014 in 1928-29, the Government grain elevators with net surplus earnings probably in excess of £60,000, and by the returns from loan works such as the out-ports and public buildings of which particulars are not available.

Average Rate of Interest.

The average rate of interest on the funded debt is calculated in two ways, showing the average nominal rate payable and the effective rate or actual rate paid.

The average nominal rate of interest payable on the funded debt outstanding at 30th June, 1929, was 4.9544 per cent., the rate on the Gold Bonds in New York being 4.8602 per cent., on the portion of the debt registered in London, 4.8102 per cent., and on the portion registered in Sydney 5.2333 per cent. The difference between the two rates lastnamed is nearly $\frac{1}{2}$ per cent. This, however, does not represent the relative cost of borrowing on the respective markets, but simply the average rates of interest payable on the amount of debt outstanding in each centre. The difference is largely due to the fact that a considerable proportion of the London loans were raised years ago when rates of interest were much lower than in recent years.

The average effective rate of interest is calculated each year to determine the amount of interest properly chargeable to the various undertakings and enterprises. The rates calculated in recent years have been 5.144 per cent.

in 1925-26; 5.1312 per cent. in 1926-27; 5.12027 per cent. in 1927-28; and 5.14062 per cent. in 1928-29. Interest at the rates shown was charged to business undertakings in respect of loan capital used by them.

STOCK QUOTATIONS.

The average market prices of certain New South Wales stocks in London and in Sydney are shown in the following table for each month for the year 1929-30. The London figures are taken from the Australasian Banking and Insurance Record and the quotations include accrued interest payable half-yearly, none being included in the first quotations in October and April. The Sydney quotations are from the *Sydney Stock and Share List*, and interest is charged to the date of payment in addition to the price quoted.

Date.	In London— New South Wales Stock— 5½ per cent. Due 1932.	In Sydney—Stock bearing Interest at— (Middle of Month.)					
		6 per cent. Due 1935.	5½ per cent. Due 1933.	5½ per cent. Due 1933.	5 per cent. Due 1933.	3½ per cent. Due 1912.*	3 per cent. Due 1912.*
1929—							
July ...	99 $\frac{13}{16}$	102 $\frac{1}{2}$	103	102	100	78 $\frac{1}{2}$	67 $\frac{1}{2}$
August ...	99 $\frac{3}{4}$	102 $\frac{1}{2}$	102 $\frac{3}{4}$	101 $\frac{7}{8}$	100	...	67 $\frac{3}{8}$
September...	99 $\frac{5}{8}$	...	...	...	...	77 $\frac{1}{2}$	...
October ...	97 $\frac{1}{2}$	101 $\frac{1}{2}$	102 $\frac{1}{2}$	101 $\frac{1}{2}$	...	77 $\frac{1}{4}$	67 $\frac{1}{4}$
November ...	97 $\frac{1}{8}$	100 $\frac{1}{2}$	102 $\frac{3}{8}$	101 $\frac{1}{2}$	100	...	67 $\frac{1}{2}$
December ...	97	...	101 $\frac{15}{16}$	...	99 $\frac{1}{2}$	76 $\frac{1}{2}$	67
1930—							
January ...	97 $\frac{1}{2}$	100 $\frac{1}{2}$	...	...	99 $\frac{3}{4}$	...	...
February ...	98 $\frac{7}{16}$	100 $\frac{1}{4}$	99 $\frac{1}{2}$	99 $\frac{3}{4}$	...	...	...
March ...	99 $\frac{1}{2}$	97 $\frac{3}{8}$	99 $\frac{1}{2}$	99 $\frac{3}{8}$	...	63 $\frac{1}{2}$	55 $\frac{1}{2}$
April ...	98 $\frac{11}{16}$	98 $\frac{1}{2}$	...	98 $\frac{3}{4}$	...	63 $\frac{1}{2}$	...
May ...	98 $\frac{3}{4}$	99 $\frac{1}{2}$	99 $\frac{1}{2}$	98 $\frac{3}{4}$	...	...	...
June ...	97 $\frac{1}{2}$	99 $\frac{1}{2}$	99 $\frac{1}{2}$	99	...	...	64

* Redeemable at Government's option on giving twelve months' notice.

Consideration of the relationship of price of stock and rates of interest in the above table should take into account the proximity or remoteness of the dates of maturity.

REDEMPTIONS AND SINKING FUNDS.

The amount of loans redeemed from various funds is shown on page 156.

Under the provisions of the State Debt and Sinking Fund Act, 1904, the Board of State Debt Commissioners was constituted, the members being the Treasurer, the Chief Justice, the Speaker of the Legislative Assembly, and the Under Secretary of the Treasury. The Board administered the sinking fund and controlled certain trust funds and special accounts.

The original Act provided for a general sinking fund constituted by payment of a sum of £350,000 each year to the credit of the fund, while under the Treasury Bills Deficiency Act, 1905, an additional £50,000 was required to be transferred to the fund whenever a sufficiently large surplus enabled this to be done. The Commissioners applied the credit balance in purchasing or paying-off stock, debentures, or Treasury bills; and they were empowered to invest moneys temporarily in approved securities. The Treasury Bills issued to liquidate revenue deficiencies were all repaid before 30th June, 1913, and the State Debt and Sinking Fund (Amendment) Act, 1914, provided that where at the close of a year there was a deficiency on the

Consolidated Revenue Account the Commissioners should repay any amount, not being greater than such deficiency, which had been issued from the fund to the Commissioners during the year. After the last-mentioned Act was passed the amount of £350,000 was paid to the Commissioners each year, but was returned to the Treasury, so that in effect the sinking fund did not receive the benefit of this transfer from revenue.

It was the practice, however, to credit the loan account with capital repaid to the State by its industrial undertakings, by local governing bodies, and by settlers to whom advances had been made. Considerable sums were received in this way (see page 160). Furthermore, it was provided that from 1st April, 1925, the Metropolitan Water, Sewerage and Drainage Board should contribute to this sinking fund a sum equivalent to 5 per cent. of its annual revenue to be applied in reduction of its capital indebtedness on loan account which forms part of the public debt. The payments under this head amounted to £351,295 at 30th June, 1928, when all sinking fund contributions by the State became payable to the National Debt Sinking Fund established under the financial agreement with the Commonwealth, which is described later.

The functions of the State Debt Commissioners insofar as they related to sinking funds have been assumed by the National Debt Commission of the Commonwealth. A statement of the transactions of the State Board from its constitution in 1905 to 30th June, 1929, is shown below:—

Receipts.		Disbursements.	
	£		£
Balance received from Treasurer	... 454,436	Repayments to Consolidated Revenue...	5,262,119
Contributions from—		Redemptions to 30th June, 1928	4,311,877
Consolidated Revenue	... 8,386,890	Redemptions during 1928-29	354,935
Sydney Harbour Trust	... 177,012	Refund to Treasurer on account of	
Metropolitan Water, Sewerage and		Country Towns Water and Sewerage	
Drainage Board	... 351,295	Works	18,663
Repayments in respect of—		Other	2
Country Towns Water and Sewer-			
age Works	... 189,645		
Closer Settlement	... 101,930		
Interest	... 286,388		
Total	... 9,947,596	Total	... 9,947,596

Particulars regarding the sinking fund established under the financial agreement between the Commonwealth and the States are shown on page 174.

FINANCIAL RELATIONSHIP BETWEEN COMMONWEALTH AND STATES.

The history of the financial relationships existing between the Commonwealth and States since federation in 1901 has been sketched in earlier issues of this Year Book, and the trend of recent discussions on proposals for the readjustment of these relationships was outlined on page 284 of the Year Book for 1925-26.

Financial Agreement, 1927.

All the matters under discussion were incorporated in a comprehensive scheme propounded by the Commonwealth and placed before conferences of Premiers in Melbourne in May, 1927, and in Sydney in July, 1927. After amendment the scheme was accepted by all the States and by the Commonwealth, and, except in certain minor matters, it was brought into operation as from 1st July, 1927.

The agreement has provided a settlement of the question of (i) the distribution amongst the States of a share of the Commonwealth revenue, a problem which arose when, upon federation, the States relinquished the right to levy customs and excise duties and it became an exclusive power

of the Commonwealth; (ii) the creation of an effective Australian Loan Council to co-ordinate public borrowing; and (iii) the liability of the Commonwealth to the States in respect of transferred properties. In addition it has provided for the creation of a uniform sinking fund in respect of the public debts of the Commonwealth and the States.

From 1st July 1910 to 30th June, 1928, the Commonwealth had contributed a share of its revenue to the States on a per capita basis at the rate of 25s. per head of population. Under the agreement of 1927 the Commonwealth will contribute a fixed sum annually to be applied towards the payment of interest on the States' debts.

Australian Loan Council.

The Australian Loan Council consists of a Minister of the Commonwealth appointed by the Prime Minister, and one Minister of each State appointed by the Premiers of the respective States. All borrowings are arranged by the Commonwealth in accordance with the decisions of the Loan Council, which determines the amount, rates and conditions of loans to be raised. The Commonwealth and each State submit annual programmes showing the amounts desired to be raised by loan for expenditure each year, and the amounts of repayments estimated to be available towards meeting that expenditure. Should these loan programmes exceed in the aggregate the amount which the Loan Council decides can be borrowed at reasonable rates and conditions in the year in question, the amount raised is apportioned in accordance with the unanimous decisions of the Loan Council, and, failing unanimity, the Commonwealth is entitled to one-fifth of the total amount raised and each State to a proportion of the remaining four-fifths equal to a ratio of their respective net loan expenditures to the total loan expenditure of the States in the preceding five years. Questions other than the apportionment of loans are determined by majority vote of the Council, the Commonwealth representative having two votes and a casting vote and each State representative one vote. Loans (other than for temporary purposes) raised by a State or by the sale of securities from Governmental institutions, including Savings Banks, are within the jurisdiction of the Loan Council, but loans for defence approved by the Commonwealth Parliament are excluded from it.

Subject to the decisions of the Loan Council, the Commonwealth arranges for all borrowings on behalf of the Commonwealth and the States, and for all conversions, renewals, redemptions and consolidations of the Public Debts of the Commonwealth and States.

If, however, the Loan Council unanimously decides, a State may borrow money outside Australia in its own name, such loans being guaranteed by the Commonwealth. Only in this case may a State invite loan subscriptions by the issue of a public prospectus.

Within its own territory the Commonwealth or any State may borrow money from any Government institution or from the public by sales of securities over the counter, or may use any available public moneys for any purpose provided that any securities issued are Commonwealth securities on terms approved by the Loan Council. Where such borrowings are not solely for temporary purposes they are treated as loans under the agreement, and if their amount, added to the amount of loan money raised for the Government concerned by the Loan Council, exceeds the limit (if any) of the amount to be raised for or by the Government in question, the excess is to be deducted from that Government's quota of borrowed money in the ensuing year.

Where such borrowings are for temporary purposes only the conditions as to sinking fund, etc., do not apply. Any Government may borrow for temporary purposes by way of overdraft or fixed or other deposit, subject to terms approved by the Loan Council.

Transfer of States' Debts to Commonwealth.

On 1st July, 1929, the Commonwealth took over, in terms of the financial agreement, the debts of the States, and assumed, as between the Commonwealth and States, the liabilities of the States to bondholders. The debts taken over consisted of the following:—

- (i) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927; and
- (ii) all other debts of each State existing on 1st July, 1929, other than for temporary purposes,

The net public debt of each State existing on 30th June, 1927, and embraced within the agreement, is shown in the following statement:—

	£
New South Wales	234,088,501
Victoria	136,949,942
Queensland	101,977,855
South Australia	84,834,364
Western Australia	61,060,675
Tasmania	22,434,060
Total	£641,345,397

These amounts represent the gross debt less (1) the value of properties transferred to the Commonwealth, as shown below, and (2) the balances of the States' sinking funds at 30th June, 1927.

Transferred Properties.

The Commonwealth had been paying to the various States interest at the rate of $3\frac{1}{2}$ per cent. on the value of properties transferred to the Commonwealth after federation. For the purposes of the financial agreement new valuations were agreed upon, and on these values the Commonwealth paid to the States during the two years 1927-28 and 1928-29 interest at the rate of 5 per cent. At the end of this period the Commonwealth, on 1st July, 1929, relieved the States of the liability for principal, interest and sinking fund on an amount of debt equal to the value of the properties, each State having agreed to issue to the Commonwealth freehold titles to the properties consisting of land or interests in land.

The value of the transferred properties in each State, according to the terms of the agreement, is shown below:—

	£
New South Wales	4,788,005
Victoria	2,302,862
Queensland	1,560,639
South Australia	1,035,631
Western Australia	736,432
Tasmania	500,754
Total	£10,924,323

Payment of Interest on Public Debt.

The Commonwealth, as agent for the States, has agreed to pay to bondholders interest due on the public debt of the States and, for a period of fifty-eight years from the 1st July, 1927, to contribute £7,584,912 per annum

towards the interest, the States paying the balance to the Commonwealth. After that period the whole of the interest due will be paid by the States to the Commonwealth.

The distribution amongst the States of the Commonwealth contribution is shown below:—

	£
New South Wales	2,917,411
Victoria	2,127,159
Queensland	1,096,235
South Australia	703,816
Western Australia	473,432
Tasmania	266,859
Total	<u>£7,584,912</u>

These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926-27 at the rate of 25s. per head of population.

National Debt Sinking Fund.

A national debt sinking fund was established in terms of the agreement. The annual payments to the fund are contributed partly by the Commonwealth and partly by the States. Contributions in respect of the net debts of the States as at 30th June, 1927, and on conversions thereof, are at the rate of 7s. 6d. per cent. per annum, the Commonwealth contributing 2s. 6d. per cent. and the States 5s. for a period of fifty-eight years.

On new borrowings after 1st July, 1927 (except those for redemptions or conversions, or for funding a State deficit), contributions are at the rate of 10s. per cent. per annum contributed in equal shares by the Commonwealth and the States for a period of fifty-three years.

Contributions in respect of loans raised to meet revenue deficits accruing after 1st July, 1927, are to be made by the State concerned, at a rate not less than 4 per cent., for a period sufficient to provide for the redemption of those loans, the contributions being deemed to accumulate at the rate of $4\frac{1}{2}$ per cent. compound interest.

In addition, contributions are paid at the rate of £3 per cent. per annum in respect of loan moneys expended by the States in terms of the Federal Aid Roads Act which is described in the chapter relating to Local Government. These contributions are to be paid by the Commonwealth until 1936, then the States are to pay similar contributions until the loans are repaid.

Any State may increase its contribution in respect of loan funds expended on wasting assets, and when such loans are extinguished the State contribution in respect thereof shall cease, but the Commonwealth contribution shall continue and be treated as part of the State contribution in respect of other loans. Repayments made to a State in respect of recoverable advances made by it may be credited either to loan account or to sinking fund, and the sinking fund contribution from revenue in respect thereof continues. Advances repaid to the State from the revenue of public or local authorities may be used by the State to meet sinking fund contributions in respect of the loans concerned.

The sinking funds are controlled by the National Debt Commission. The contributions to sinking fund are not accumulated but must be applied, whenever expedient, to the redemption and repurchase of loan securities.

Such redeemed or repurchased securities are cancelled, and the State concerned pays to the National Debt Commission interest at the rate of $4\frac{1}{2}$ per cent. per annum in addition to sinking fund contribution in respect of such cancelled securities.

Separate accounts are kept by the Commonwealth for each State in respect of debt, interest, and sinking funds. The operations of the National Debt Sinking Fund in regard to the debts of the State of New South Wales during the two years 1927-28 and 1928-29 are summarised below:—

Receipts.		Expenditure.	
	£		£
Contributions—		Repurchases—London and New York...	506,229
Financial Agreement—		Redemptions—Sydney	286,812
Commonwealth, 1927-28 and 1928-		Accrued interest to vendors of securities	*758
29	637,175	Balance at 30th June, 1929	427,474
State, 1928-29	636,478		
Federal Aid Roads—Commonwealth	19,864		
Grafton-Kyogle Railway—State ...	1,797		
Interest on—			
Cancelled Securities	4,018		
Investments	11,941		
Total	£ 1,311,273	Total	£ 1,311,273

* To be recovered from the State in 1929-30.

The repurchases in London covered inscribed stock of a face value of £426,600, the net cost being £415,415. The face value of gold bonds purchased in New York was £193,767 (938,100 dollars) at a cost of £180,814.

PRIVATE FINANCE.

CURRENCY.

CURRENCY matters in Australia are under the supervision of the Commonwealth Government. Matters relating to the metallic currency are administered in terms of the Coinage Act, 1909, and the paper currency is controlled by the Commonwealth Bank Act, 1911-1929, and the Bank Notes Tax Act passed in 1910.

During the war period restrictions were placed upon the use of gold. The banks and the Mint ceased to issue gold coins to the public, and paper money came into general use. The removal of restrictions on the export of gold re-established the gold standard in international transactions in April, 1925, but the use of notes for internal currency was continued. In January, 1930, restrictions were imposed again upon the export of gold, and the gold resources of Australia were mobilized under the supervision of the Commonwealth Bank so that they might be used for the purpose of relieving an adverse exchange position which had developed in consequence of a fall in the prices of staple exports.

An estimate of the face value of the currency of New South Wales at five-year intervals between 1901 and 1921 was published in the 1921 issue of this Year Book in the chapter relating to Valuation of Wealth, details being given regarding the sources of data and the method used in formulating the estimate.

The face value of coins held by banks in New South Wales at 30th June, 1929, was: Gold £10,667,117, silver £959,207, and copper £54,819. In addition, the Note Issue Department of the Commonwealth Bank held, in Sydney, gold coin to the value of £2,728,005. The corresponding figures as at 30th June, 1930, were: Gold coin £89,638, silver £1,066,470, copper £59,242, and gold coin in Note Issue Department, Sydney, £9,252,000.

COINAGE.

British or Australian gold coins are legal tender in New South Wales for the payment of any amount, silver coins up to forty shillings, and bronze up to one shilling.

A branch of the Royal Mint, London, was opened in Sydney on 14th May, 1855, for minting gold, and operated until 18th November, 1926. Branches are in operation in Melbourne (Victoria), and in Perth (Western Australia). The Commonwealth Coinage Act, 1909, empowers the Federal Treasurer to make and issue silver and bronze coins of specified denominations. A nickel coinage also was authorised, but it has not been issued.

For gold coins the standard fineness is $\frac{11}{12}$ fine gold, $\frac{1}{12}$ alloy; for silver coins $\frac{37}{40}$ fine silver, $\frac{3}{40}$ alloy; bronze coins are of mixed metal—copper, tin, and zinc. Thus, standard or sovereign gold has a fineness of 22 carats, and the gold contained in deposits sent to the Mint for melting, assaying, and coining is accounted for at the rate of £3 17s. 10½d., or 3·8937 sovereigns per oz.

The nominal value of one ounce of silver coined into sixpences is 5s. 6d., and of one pound (avoirdupois) of bronze coined into pence 4s., and into half pence 3s. 4d.

As the coinage value of an ounce of silver is 5s. 6d., a substantial profit is usually made on the coinage, after the minting and other expenses have been deducted. Under normal conditions, the price of silver is determined by transactions in the London market, and the average of the prices ruling there in recent years is shown below:—

Year.	Price of Silver per standard oz.	Year.	Price of Silver per standard oz.
	s. d.		s. d.
1920	5 1·6	1925	2 8·1
1921	3 0·4	1926	2 4·7
1922	2 10·4	1927	2 2·0
1923	2 7·9	1928	2 2·7
1924	2 9·9	1929	2 0·5

In 1918 the price of silver in London was subject to regulation by the Imperial Government. It was decontrolled in May, 1919. In the latter part of the year it commenced to rise and in February, 1920, the average price was 7s. 6d. per oz. Thereafter it declined rapidly, and in June of the same year the price was 3s. 4d. per oz. The annual average fell steadily between 1921 and 1923. In 1924 there was a rise of 2d. per oz., but this was not maintained. The average was high during the first six months of the year 1926, then it declined by 5½d. per oz. before the end of the year, when the price, 24½d., was lower than at any time since 1915. The price rose by 1½d. early in 1927, and remained fairly constant throughout the year, the annual average being 2¾d. lower than in 1926. There was only slight variation during 1928, then a slow decline throughout 1929 from 2s. 2½d. in January to 1s. 10½d. in December. The downward movement was accelerated in the following year, the average being as low as 1s. 4d. in July, 1930.

PAPER CURRENCY.

Bank Notes.

Prior to 1910 the right to issue paper currency in New South Wales was vested in private banking institutions which had acquired the right by Royal charter or by special Act of Parliament, the bank notes being subject to a tax of 2 per cent. per annum imposed by the State. In 1910 the Federal Parliament, having authorised the issue of Australian notes, imposed a tax of 10 per cent. on the notes of the trading banks, with the object of forcing them out of circulation. Consequently the value of the bank notes current dropped from £2,213,128 in December quarter, 1910, to £400,784 in the following year. In June quarter, 1930, the amount was £63,870.

Australian Notes.

The Australian Notes Act, 1910, passed by the Commonwealth Parliament, prohibited the circulation of notes by any of the States and authorised the Federal Treasurer to issue Australian notes, in denominations of 10s., £1, £5, £10, and multiples of £10, to be legal tender throughout the Commonwealth, and to be payable on demand at the seat of Federal Government.

Five-shilling notes were authorised, but have not been issued. The gold reserve in respect of the notes was fixed at an amount not less than one-fourth of the notes issued up to £7,000,000, and £ for £ in excess of that amount, but in the following year the Act was amended and the reserve was fixed at one-fourth of the issue.

In December, 1920, control of the Australian note issue was transferred to the Commonwealth Bank, in which a Note Issue department was established. Since the transfer the notes have been issued by the Commonwealth Bank and are payable at the head office of the Bank. Under the Act of 1920, the management of the note issue was entrusted to a Board, consisting of the Governor of the Bank as chairman, and three other directors appointed by the Governor-General, one being an officer of the Commonwealth Treasury. Under the provisions of the Commonwealth Bank (Amendment) Act of 1924 the note issue was placed under the control of the Board of Directors of the Bank, but a decision affecting the issue is not effective unless six of the eight directors vote for it at a meeting at which all the directors are present, or five vote for it when any of the directors is absent.

The Act of 1924 authorises the Board to issue Australian notes to banks in Australia in exchange for money or securities lodged with the London branch of the Commonwealth Bank. This provision was made to obviate monetary difficulties arising from market fluctuations in rates of exchange between Australia and London.

Of the net profits of the note issue, after paying working expenses and commission to the Commonwealth Bank for the purpose of its general business, 25 per cent. is to be paid into the Rural Credits Department of the Bank in terms of an amending Act passed in 1925—until the amount so paid reaches a total of £2,000,000. The balance of the net profits is paid to the Treasury of the Commonwealth. The money derived from the issue, apart from the gold reserve, may be invested on deposit with any bank; in securities of the United Kingdom, of the Commonwealth, or of a State; or in trade bills with a currency of not more than 120 days.

The total value of the Australian notes in circulation in New South Wales and elsewhere, and the gold reserve held by the Notes Issue Department, in various years since 1914, are shown below. The figures for June, 1914, are as at the last Wednesday and those for later years relate to the last Monday of the month:—

End of June.	Notes in Circulation.			Gold Reserve.	
	Held by Banks.	Held by Public.	Total.	Total.	Proportion of Note Circulation.
	£	£	£	£	Per cent.
1914	...	...	9,573,738	4,106,767	42·90
1921 ...	34,303,896	23,924,174	58,228,070	23,478,128	40·32
1923 ...	30,254,500	23,635,726	53,890,226	28,182,387	52·30
1927 ...	23,479,995	24,913,231	48,393,226	22,065,071	45·60
1928 ...	19,540,226	24,913,000	44,453,226	22,485,972	50·58
1929 ...	17,805,812	24,452,414	42,258,226	22,151,497	52·42
1930 ...	22,342,161	22,572,165	44,914,326	19,931,102	44·38

The note issue expanded under war conditions until it amounted to £59,676,401 in October, 1918. This is the maximum since the commencement of the issue, though, after a decline of £5,000,000 in the following year, increases between November, 1920, and March, 1921, brought it to the high level of £59,462,000. By October, 1922, it had fallen below £52,000,000 and remained fairly constant until March, 1924, when notes to the value of £4,200,000 were issued to the banks to discharge certain liabilities incurred by the Federal Government in connection with the war. The amount of the issue increased in this manner, was £56,890,226 in May, 1924, and no change was made until notes to the value of £3,000,000 were cancelled twelve months later. Cancellations in July and August, 1926, reduced the issue to £49,890,226 and in March, 1927, to £48,393,226. It was increased temporarily by £3,400,000 in December, 1927, to meet seasonal demand and to facilitate the flotation of a federal conversion loan which the banks had underwritten. Before the end of the following month, the issue had contracted to £47,893,226 and thereafter the general trend was downwards. The value of the notes in circulation was £44,103,226 at the end of July, 1928, and twelve months later it had fallen to £41,608,226—the lowest amount since 1915. At that time, however, its distribution between the banks and the public was dissimilar to that in recent years, as in 1915 the banks held nearly £29,000,000 and the public £11,000,000, and in July, 1929, the banks held less than £18,000,000 and the public £24,500,000.

The reduction in the notes held by the banks was due mainly to the policy adopted by the Board of Directors, viz., to restrict the note circulation to immediate requirements and to provide additional currency when required to meet seasonal demands of trade and industry. Consequently the banks found it unnecessary to hold notes in excess of those required as till money and the surplus notes were deposited with the Commonwealth Bank and cancelled. Normally the seasonal demand for currency is at a minimum in July and August, increasing during the later months of the year owing to the requirements of the rural industries for shearing, harvesting, etc., and rising to a maximum in December under the additional influence of the Christmas holiday period. The latter influence is short-lived and a marked reduction occurs in January, then the demand declines gradually as the wool, wheat, and other products are sold.

During 1930 a movement in the issue did not follow the normal course. The Commonwealth Bank under the authority of legislation passed in December, 1929, was mobilizing the gold in Australia and in exchange for their reserves the banks received notes or the right to notes on demand. As a result the notes held by the banks increased from £17,188,000 in January to £22,342,000 in June and the total issue expanded from £42,639,000 to £44,914,000. During this period the amount of gold held in the Note Issue Department increased as it was requisitioned from the banks, and declined when it was exported overseas. Nevertheless the value of the gold reserve held by the Department is considerably above the proportion of 25 per cent. required by law, the excess in June, 1930, being £8,702,621.

Money Orders and Postal Notes.

Exchange by means of money orders and postal notes is conducted by the Post Office. The maximum amount which may be transmitted by a single money order is £20, if the place of payment is within the Commonwealth; to places outside the Commonwealth the maximum is £10, £20, or £40, as

fixed by arrangement with the country concerned. The following table gives particulars of the money orders issued and paid in New South Wales during the last five years:—

Year ended 30th June.	Money Orders issued in New South Wales for payment in—				Money Orders issued elsewhere, paid in New South Wales.		
	New South Wales.	Other Australian States.	Other Countries.	Total.	In other Australian States.	Beyond the Commonwealth.	Total.
	£	£	£	£	£	£	£
1925 ...	5,522,731	726,857	367,403	6,616,991	953,194	515,294	1,268,488
1926 ..	5,813,122	769,995	390,340	6,973,457	1,010,030	292,357	1,302,387
1927 ...	6,237,444	856,821	438,340	7,532,605	905,601	274,447	1,180,048
1928 ..	6,461,496	892,412	498,209	7,852,117	919,796	285,860	1,205,656
1929 ...	6,554,752	878,158	492,359	7,925,269	869,859	294,892	1,164,751

The amount of the money orders issued in other Australian States for payment in New South Wales exceeds the amount sent from this State, but in the international money orders the balance is against New South Wales.

The maximum amount for which a single postal note is issued is £1, and particulars regarding them are shown below:—

Year ended 30th June.	New South Wales Postal Notes paid in—			Postal Notes of other Australian States paid in New South Wales.
	New South Wales.	Other Australian States.	Total.	
	£	£	£	£
1925 ...	1,476,859	458,494	1,935,353	176,329
1926 ...	1,529,254	529,413	2,058,667	186,633
1927 ...	1,617,272	651,980	2,269,252	193,301
1928 ...	1,747,175	712,123	2,459,298	207,031
1929 ...	1,804,395	728,291	2,532,686	212,860

The amount of money sent by postal notes to the other States is more than three times the aggregate value of the interstate postal notes paid in New South Wales. This method of transmitting small sums is used extensively for the purchase of shares in lotteries conducted in other States, the sale in New South Wales being prohibited.

The number of New South Wales postal notes paid in the State during the year ended June, 1929, was 4,492,827, and 2,248,720 were paid in other Australian States. The postal notes issued in other States and paid in New South Wales numbered 610,621.

BANKS.

Institutions which transact banking business are required under the Banks and Bank Holidays Act to furnish to the Chief Secretary quarterly statements of their assets and liabilities; also, when required, to furnish special statistical returns under the State Census Act of 1901. From these returns, and from the periodical balance-sheets issued by the banking companies, the information contained in the following tables has been prepared. Under the Commonwealth Bank Act the banks are required to supply weekly statements of their Australian business to the Commonwealth Bank.

The banking institutions which transact business in New South Wales are sixteen in number, but only twelve have more than one office in the State. All of these transact practically the whole of their business in Australia, and all except three are controlled in Australia.

The location of the head offices and the distribution of the branches of the sixteen banks operating in New South Wales at 30th June, 1930, are shown in the following table:—

Banks Operating in New South Wales.	Number of Offices In—										Total.
	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital.	New Zealand.	London.	Elsewhere.	
Head Office in N.S.W.—											
Commonwealth of Australia	24	17	31	5	10	4	1	...	2	1	95
Rural	191	...	...	...	...	...	1	...	1	...	192
New South Wales	207	61	63	8	79	3	1	69	1	8	500
Commercial of Sydney	224	125	33	5	...	...	1	...	1	...	389
Australian Bank of Commerce	127	1	23	1	2	...	...	...	1	...	155
Primary Producers	13	17	12	11	9	3	...	...	1	...	66
Head Office in Victoria—											
Commercial of Australia	99	206	94	98*	42	48	1	50	1	...	639
National of Australasia	50	152	43	48	48	2	...	...	2	...	345
Head Office in Queensland—											
Queensland National	7	1	93	...	...	...	1	...	1	...	103
Head Office in South Australia—											
Adelaide	1	1	1	123	2	...	...	...	1	...	129
Head Office in New Zealand—											
New Zealand	1	1	...	...	...	...	...	237	1	3	243
Head Office in London—											
Australasia	59	72	19	9	16	11	...	50	1	...	239
Union of Australia... ..	55	51	18	15	25	3	...	49	1	...	217
English, Scottish, and Australian	123	180	62	57*	12	28	1	...	1	...	463
Head Office in France—											
Comptoir National... ..	1	1	...	...	...	...	...	...	2	544	548
Head Office in Japan—											
Yokohama Specie	1	...	...	...	...	...	...	...	1	43	45
Total	1,183	886	492	380	245	102	7	455	19	599	4,368

* Includes one in Northern Territory.

The foregoing statement shows the total number of branches of trading banks in New South Wales, but not the total number of bank offices in other States, because banks which have no offices in New South Wales are not included.

The Commonwealth Bank of Australia is controlled by the Federal Government, and it functions partly as a trading bank and partly as a central bank, besides handling the business of the Federal Government, floating its local loans, and managing the note issue. The Rural Bank is a department of the Government Savings Bank of New South Wales, which receives deposits and operates cheque accounts for customers, besides making advances to and conducting ordinary banking business for persons engaged in rural industries.

Capital and Profits of Trading Banks.

Particulars relating to the aggregate capital and profits of the Australasian banks operating in New South Wales, as listed in the foregoing statement, are shown in the following table. The particulars relate to the

whole of the business of the banks in New South Wales and elsewhere. The French and Japanese banks are not included, as they have only one branch, each doing a small business in the State.

Year.	Number of Banks.	Capital paid up.	Reserve fund and balance of Profit and Loss.	Net profits.	Dividends.†	
					Total.	Percentage to paid-up capital.
		£	£	£	£	
1895	13	19,704,957	4,338,861	750,755	540,409	2·74
1900	13	16,807,069	4,742,026	1,257,403	689,969	4·10
1910-11	14	16,193,550	9,292,715	2,085,004	1,297,885	8·01
1920-21	13	27,040,770†	17,057,163†	4,389,157†	2,735,923	10·11
1925-26	15	47,893,382	31,292,248	6,199,057	4,201,372	11·11
1926-27	14	50,256,627	34,088,603	6,701,708	4,410,981	11·06
1927-28	14	54,781,602	36,866,228	7,012,143	4,898,349	11·10
1928-29	14	55,934,758	39,145,399	7,052,829	5,080,468	11·28

† Private trading banks only.

‡ Excluding Commonwealth Bank.

The Commonwealth Bank and the Rural Bank are conducted under the auspices of the Federal and State Governments respectively, consequently they do not pay dividends. The amount of capital included in respect of the Commonwealth Bank (including the Rural Credits Department) in 1929 was £5,073,736, and for the Rural Bank £5,817,841, the latter amount being interest-bearing stock and debentures issued to the Government Savings Bank of New South Wales and the general public.

The total paid-up capital has more than doubled since 1921, a sum of £28,893,968, having been added since that year. The increases include stock and debentures issued by the Rural Bank, and the capitalised reserve funds of the Commonwealth Bank. The reserve funds of the banks have been built up steadily in recent years, and have been augmented by £22,088,000 since 1921.

Liabilities within New South Wales.

The following statement shows the average liabilities of all the banks within New South Wales, exclusive of those to shareholders. From 1921 to 1928 the interest-bearing deposits include savings bank deposits in the Commonwealth Bank of Australia. In consequence of the separation of the Savings Bank department from the general bank in 1928, the particulars relating to that department are not included in the figures for 1929 and 1930:—

June Quarter.	Bank Notes.	Deposits.				Other Liabilities.	Total Liabilities within N.S.W.
		Bearing Interest.		Not Bearing Interest.	Total Deposits.		
		In Commonwealth Savings Bank.	Other.				
	£	£	£	£	£	£	£
1895*	1,223,864	...	20,406,822	10,222,437	30,629,259	183,929	32,037,052
1900*	1,447,641	...	20,009,081	12,224,510	32,233,591	288,499	33,969,731
1911	1,819,180	...	29,341,683	25,985,355	55,327,038	608,941	57,755,159
1921	71,654	6,308,826	48,322,625	53,044,965	107,676,416	3,661,412	111,409,482
1926	64,990	8,928,872	62,027,815	59,255,212	130,211,899	5,332,475	135,609,364
1927	64,681	9,890,238	66,177,679	56,468,226	132,536,143	5,124,571	137,725,395
1928	64,398	10,434,395	72,721,481	55,357,004	138,512,880	6,050,474	144,627,752
1929†	64,115	...	78,040,307	56,283,642	134,323,949	6,845,864	141,233,928
1930†	63,870	...	82,130,753	48,287,572	130,418,325	9,509,149	139,991,344

* December quarter.

† Commonwealth Savings Bank excluded.

The decline in the value of bank notes in circulation is the result of their replacement by Australian notes. The remarkable growth of deposits between 1911 and 1921 was largely due to the war expenditure and increase in prices. Since 1921 the rise and fall of deposits have been determined mainly by fluctuations in the volume and value of production. The deposits include Government deposits which in June quarter, 1929, consisted of £5,085,757 at interest and £2,369,061 on current account, and in 1930, of £4,136,454 and £2,144,837, respectively.

Assets within New South Wales.

The following table shows the average assets within New South Wales of all banks operating in the State. In order to institute a comparison between the figures of the various banks, necessary adjustments have been made by excluding from the assets the balances due from branches and agencies outside New South Wales:—

June Quarter	Coin and Bullion.	Australian Notes.	Advances (including Government Securities), etc.	Landed Property.	Other Assets.	Total Assets within N.S.W.
	£	£	£	£	£	£
1895†	7,516,278	...	35,707,153	1,919,017	479,881	45,622,329
1900†	6,126,126	...	34,385,388	1,874,099	650,814	43,036,427
1911	14,524,960	1,770,751	42,456,515	1,871,811	1,282,787	61,906,824
1921	10,151,949	11,812,417	104,709,314	2,573,628	3,186,625	132,433,933
1926	14,659,610	16,114,987*	123,950,187	3,112,343	3,924,044	161,761,171
1927	12,243,797	10,762,818*	135,439,590	3,025,719	4,813,069	166,284,993
1928	12,132,148	10,374,870*	140,690,523	2,987,197	4,756,964	170,941,702
1929†	11,984,120	11,046,465*	143,822,569	3,187,582	3,787,975	173,828,711
1930†	2,254,799	15,767,082*	151,023,652	3,472,418	5,513,234	178,031,185

* Includes cash deposited with the Commonwealth Bank by other banks. † December Quarter.
 † Commonwealth Savings Bank excluded.

The cash reserves of the banks consist of coin and bullion and Australian notes. The amount of notes increased very rapidly during the war period when the banks transferred a large amount of gold to the Federal Treasury and rendered assistance to the Government in other ways in connection with war loans, etc., receiving in exchange Australian notes, or the right to obtain notes on demand.

There was a decline in 1927 when, as a result of arrangements with the note issuing authority, the banks discontinued a former practice of holding large amounts of notes. There was an increase in 1930 when the banks transferred a considerable quantity of gold to the Commonwealth Bank for export.

By reason of these arrangements there has been a marked decline in the proportion of coin, bullion and Australian notes to liabilities and to deposits, but as the cash resources available to the banks in recent years have been greater than the amount of cash actually held the significance of the ratios has been diminished. Moreover an extension of interstate banking operations affects the conclusions which might be drawn from the consideration of ratios for only one State.

Under the head of advances are included overdrafts and loans of all kinds, notes and bills discounted, sums invested in Government and municipal securities and all other debts due to the banks. The bulk of the advances are secured by the mortgage of real estate, or by the deposit of deeds over which the lending institutions acquire a lien, but the extent to which trade bills are discounted is not disclosed. The funds invested in Government

and municipal securities in June quarter of the successive years from 1926 to 1928 amounted to £24,425,503, £26,959,511 and £34,235,388 respectively. The amounts in 1929 and 1930, being exclusive of the Commonwealth Savings Bank, were £24,248,272 and £22,011,575.

The amounts advanced to Governments other than those for which securities were issued cannot be stated.

The following table shows the ratio of advances to deposits, and to total assets, at various dates from 1895, the figures being for the June quarter of each year from 1911. Owing to the incidence of shearing and harvesting operations, deposits are usually at a maximum and advances at a minimum in the first half of the year.

June Quarter.	Deposits. ‡	Advances, etc. (including Govern- ment Securities).	Ratio of Advances, etc.		Amount of Deposits per head of Popu- lation.‡
			To Deposits.	To Total Assets.	
	£	£	per cent.	per cent.	£ s. d.
1895*	30,629,258	35,707,153	116·6	78·3	24 5 4
1900*	32,233,591	34,385,388	101·2	79·9	23 12 5
1911	55,327,038	42,456,515	76·7	68·6	33 5 11
1921	107,676,416	104,709,314	97·2	79·1	51 3 8
1926	130,211,899	123,950,187	95·2	76·6	56 2 10
1927	132,536,143	135,439,590	102·2	81·4	55 17 5
1928	138,512,880	140,690,523	101·6	82·3	57 2 6
1929	134,323,949	143,822,569	107·1	82·7	54 10 3
1930	130,418,825	151,023,652	115·8	84·8	57 8 11

* December quarter.

‡ Including deposits in Commonwealth Savings Bank in years 1921 to 1928.

The deposits shown above include Government deposits, which amounted to £16,375,313 in June quarter, 1926, to £9,507,823, £7,239,150, £7,454,818, and £6,281,291, in the succeeding years. Between 1921 and 1928 they include also deposits in the Commonwealth Savings Bank incorporated in the accounts of the Commonwealth Bank of Australia, viz., £8,928,872 in 1926, £9,890,238 in 1927, and £10,434,395 in 1928.

Deposits and advances fluctuate from year to year with changes of seasonal and industrial conditions. Deposits increased during the post war period under the stimulus of bountiful production and high prices in favourable seasons. At the same time an active investment market and industrial and commercial expansion caused a heavy demand for advances.

During 1929-30 however deposits decreased and advances increased in an unusual degree owing to a steep decline in the values and the slower realisations of the principal primary products, and consequent reactions upon business generally.

Banking Statistics in relation to general business activities.

A statement of the liabilities and assets of the trading banks would indicate more clearly their relation to general business conditions in New South Wales if the particulars of the Commonwealth Bank were

excluded, on account of the special nature of its activities, *e.g.*, savings bank and Federal Government business, the control of the note issue and other functions of central banking. For this purpose the following statement has been prepared to show the liabilities, exclusive of shareholders' capital, and assets within New South Wales of the trading banks, other than the Commonwealth Bank, in June quarter of the six years 1925 to 1930:—

Liabilities in New South Wales (excluding Commonwealth Bank).

June Quarter	Deposits Bearing Interest.		Deposits not Bearing Interest.		Total Deposits.	Bank Notes and Other Liabilities.	Total Liabilities in N.S.W.
	Government.	Other.	Government.	Other.			
	£	£	£	£	£	£	£
1925	9,388,218	46,400,631	679,550	45,866,777	102,335,176	2,382,071	104,717,247
1926	8,177,574	52,265,323	813,016	47,686,308	108,942,221	2,562,105	111,504,326
1927	4,703,083	59,070,042	600,303	48,325,414	112,698,842	2,890,296	115,589,138
1928	4,916,303	65,168,475	825,204	49,250,191	120,160,173	3,168,638	123,328,811
1929	5,081,115	70,168,028	770,249	49,799,056	125,818,448	3,245,881	129,064,329
1930	4,128,824	74,049,084	559,201	42,347,990	121,085,099	3,478,735	124,563,834

Assets in New South Wales (excluding Commonwealth Bank).

June Quarter	Coin, Bullion, Australian Notes, and Cash with Commonwealth Bank.	Advances, etc.			Landed Property.	Other Assets.	Total Assets in N.S.W.
		Government and Municipal Securities.	Other Advances, etc.	Total Advances.			
	£	£	£	£	£	£	£
1925	23,645,947	7,537,352	86,598,289	94,135,641	2,714,704	2,264,317	122,760,609
1926	22,751,333	9,460,449	94,464,624	103,925,073	2,796,691	2,231,764	131,704,911
1927	20,683,686	8,820,165	101,808,395	110,628,560	2,730,849	3,589,396	137,632,491
1928	21,361,627	12,703,705	100,359,352	113,063,057	2,702,948	3,963,368	141,091,000
1929	21,776,941	12,005,592	113,797,228	125,802,820	2,944,229	3,722,326	154,246,316
1930	15,508,329	8,223,290	121,884,348	130,107,638	3,286,047	5,404,703	154,306,717

The statement shows that there was a fairly steady expansion of non-governmental deposits between 1925 and 1928, the increase, exceeding £7,000,000 in each year, occurred for the most part in the deposits at interest, which rose by £18,000,000, as compared with an increase of £3,400,000 in non-interest bearing deposits. In 1928-29 deposits at interest increased by £5,000,000 and current accounts showed very little expansion. In the following year nearly £4,000,000 were added to interest bearing deposits but current accounts declined by £7,450,000.

The amount of advances, apart from public securities, increased in 1926 and 1927 as much as the non-governmental deposits. In the following year they declined by £1,450,000, and investments in public securities increased by £3,880,000. The increase in public securities was a result of the underwriting by the banks of the Federal loan raised at the end of 1927. This effected the supply of credit for other advances, and the fact that weather conditions in 1927 tendered to decrease primary production caused banks to restrict credit so as to discourage speculation and extravagance arising from a succession of bountiful seasons. The distribution in

November, 1927, of £8,000,000 to Australian woolgrowers in respect of Bawra operations had the effect of increasing deposits and lessening the demand for advances. During 1929 and 1930 the banks apparently disposed of some of their investments in public securities in order to meet the greater demand for other advances and in 1930 public securities showed a decline of £4,500,000 as compared with the amount two years ago, and other advances an increase of £21,500,000.

The following statement shows the ratio of advances, etc., to deposits and to total assets on the basis of the figures in the preceding table, that is excluding particulars of the Commonwealth Bank:—

June Quarter.					Ratio of Advances to Deposits.	Ratio of Advances to Total Assets.
					per cent.	per cent.
1925	...	...	...	...	92.0	76.7
1926	...	...	...	...	95.4	78.9
1927	...	...	...	...	98.2	80.4
1928	...	...	...	...	94.1	80.1
1929	...	...	...	...	100.0	81.6
1930	...	...	...	...	107.5	84.3

Size of Depositors' Accounts.

A classification of accounts according to the amount of deposit at or about 30th June, 1929, is shown below, the figures being exclusive of particulars of the Commonwealth Bank, which are not available.

Classification.	Current Accounts.		Fixed Deposit Accounts.		Current and Fixed Deposit Accounts.	
	Number.	Amount at Credit.	Number.	Amount at Credit.	Number.	Amount at Credit.
		£		£		£
£200 and under ...	185,662	8,122,950	44,861	4,634,262	230,523	12,757,212
£201- £500 ...	22,243	6,955,880	28,225	10,648,744	50,468	17,604,624
£501- £1,000 ...	8,773	6,099,885	16,979	13,455,420	25,752	19,555,305
£1,001- £2,000 ...	4,137	5,748,293	7,401	10,978,424	11,538	16,726,717
£2,001- £3,000 ...	1,245	3,014,040	1,980	5,130,618	3,225	8,144,658
£3,001- £4,000 ...	560	1,936,630	777	2,791,974	1,337	4,728,604
£4,001- £5,000 ...	335	1,510,976	649	3,105,091	984	4,616,067
£5,001-£10,000 ...	506	3,421,109	828	6,279,828	1,333	9,700,937
£10,001-£15,000 ...	125	1,514,328	164	2,110,614	289	3,624,942
£15,001-£20,000 ...	54	938,938	83	1,562,649	138	2,501,587
Over £20,000 ...	115	9,112,388	222	14,730,013	337	23,842,401
Total ...	223,755	48,375,417	102,169	75,427,637	325,924	123,803,054

Accounts with balances not exceeding £500 represented 86.2 per cent. of the total number of accounts and 24.5 per cent. of the deposits. Accounts of £2,000 and under represented 97.6 per cent. of the total accounts and 53.8 per cent. of the deposits, 46.2 per cent. of the aggregate amount of the deposits being held in 2.4 per cent. of the accounts. Small deposits were more numerous in current accounts, as persons wishing to place small sums of money at interest generally avail themselves of the facilities offered by the savings banks. The number of accounts does not represent the number of individual persons who have accounts with the banks.

The proportion of accounts and of deposits in each group are shown below:—

Classification.	Proportion of Accounts in each Group.			Proportion of Deposits in each Group.		
	Current Accounts.	Fixed Deposit Accounts.	Total.	Current Accounts.	Fixed Deposit Accounts.	Total.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
£200 and under ...	83.0	43.9	70.7	16.8	6.2	10.3
£201- £500 ...	9.9	27.6	15.5	14.4	14.1	14.2
£501- £1,000 ...	3.9	16.6	7.9	12.6	17.8	15.8
£1,001- £2,000 ...	1.8	7.3	3.5	11.9	14.6	13.5
£2,001- £3,000 ...	0.6	1.9	1.0	6.2	6.8	6.6
£3,001- £4,000 ...	.3	.8	.4	4.0	3.7	3.8
£4,001- £5,000 ...	.1	.6	.3	3.2	4.1	3.7
£5,001-£10,000 ...	.2	.8	.4	7.1	8.3	7.9
£10,001-£15,000 ...	.1	.2	.1	3.1	2.8	2.9
£15,001-£20,000 ...	.1	.3	.2	1.9	2.1	2.0
Over £20,000 ...				18.8	19.5	19.3
Total ...	100.0	100.0	100.0	100.0	100.0	100.0

Banks' Exchange Settlement.

The Banks' Exchange Settlement Office was established in Sydney on the 18th January, 1894.

Exchanges are effected daily between the metropolitan banks. The results of the operations are notified to the secretary of the Banks' Exchange Settlement, who notifies each institution daily of the amount of its balance with the "pool." It is not permissible for the balance of any bank to remain below 25 per cent. of the fixed contribution. In the event of it reaching this margin, the bank is required to make up the deficiency with gold or Australian notes. The Commonwealth Bank Act of 1924 provided that, after a date to be proclaimed, the exchange balances between the banks must be settled by cheques drawn on and paid into the Commonwealth Bank. Pending the issue of the proclamation, the banks inaugurated the system voluntarily as from 27th April, 1925, and for this purpose established current accounts with the Commonwealth Bank. The daily clearances are still made through the Settlement Office, and the amount of the cheques drawn on the Commonwealth Bank is included in the exchanges.

The following table shows the growth in the volume of exchanges made through the Settlement Office. The figures represent the aggregate value of cheques drawn on one bank and paid by another in the metropolitan area and the net balances of transactions at country interbank clearings:—

Year.	Amount of Exchanges.	Year.	Amount of Exchanges.
	£		£
1896	117,718,862	1926	954,253,166
1901	167,676,707	1927	1,034,894,890
1911	304,488,435	1928	1,033,511,119
1921	709,734,554	1929	1,043,324,614

These exchanges do not represent all the cheque operations of the banks, but may be considered an indication of the comparative intensity of business activity from year to year, though their volume is appreciably affected by marked changes in price levels.

The transactions have grown rapidly. The increase between 1911 and 1921 was due partly to a rise in price levels, but the volume of business also expanded. In 1926 and 1927 the general level of wholesale prices was fairly stable, and the exchanges, already at a high level, increased by 8 per cent. by reason of the large turnover resulting from the sale of primary products and transactions in connection with the conversion or redemption of Federal loans. The variations in 1928 and 1929, an alternate fall and rise, were somewhat similar to, but less marked, than the movement in wholesale prices. The effects of a sharp decline in prices of staple products and a slackening of business activity became apparent in 1930, and the exchanges during the six months January to June, 1930, dropped to £454,427,708 as compared with £528,306,960 during the corresponding period of the year 1929.

Interest, Discount, and Exchange Rates.

The annual rates of interest generally paid by the trading banks on fixed deposits remained constant from July, 1920, to January, 1930, viz.:—4 per cent. for sums deposited for six months; 4½ per cent. for twelve months, and 5 per cent. for two years. As from 28th January, 1930, the rates were raised to 4¾ per cent., 5 per cent., and 5½ per cent. respectively. Under normal conditions the rate of interest paid on fixed deposits is uniform for all banks, and discount and overdraft rates fluctuate with the interest paid to depositors.

The Commonwealth Bank increased its rate for general overdrafts from 6½ per cent. to 7 per cent. as from 1st January, 1925, and reduced it to 6½ per cent. six months later. In the Rural Credits Department the rate for advances was reduced from 6½ per cent. in 1927, to 6 per cent. in 1928, and to 5½ in 1929.

The interest rates allowed on deposits for twelve months, and charged on overdrafts, also the discount and exchange rates at intervals from 1891 to 1929, were as follow:—

Year.	Bank Rates of Interest.		Bank Discount Rates.		Exchange Rate on London at 60 Days' Sight.	
	Allowed on Deposits for Twelve Months.	Charged on Overdrafts.	Bills at Three Months.	Bills over Three Months.	Buying.	Selling.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1891	4 to 5½	9	7	8	99½ to 100	100½ to 101½
1901	3	6 to 7	5 to 5½	5½ to 6½	99½ „ 99½	100½ „ 100½
1911	3	6 „ 7½	5 „ 6	6 „ 7	98½ „ 99	99½ „ 99½
1921	4½	6 „ 8	5 „ 6	6 „ 7	98½ „ 99½	100½ „ 100½
1926	4½	6 „ 8	5½ „ 7	6 „ 7	98 „ 98½	98½ „ 99½
1927	4½	6 „ 8	5½ „ 7	6 „ 7	98½ „ 98½	99 „ 99½
1928	4½	6½ „ 8	6 „ 7	6½ „ 7	98½ „ 98½	99½ „ 99½
1929	4½	6½ „ 8	6 „ 7	6½ „ 7	98½ „ 99½	99½ „ 100½

Early in the year 1924 the exchange rates on London, which had remained constant throughout the preceding year, began to advance rapidly. The discount on sixty days' sight drafts (buying) rose from 47s. 6d. in January, 1924, to 92s. 6d. in October, when high prices were being realised for staple products. Restrictions upon the movement of gold and the relative position of the exchanges of other countries prevented the inflow of gold into Australia which otherwise would have been a natural sequence when the exchange rates between Australia and London became so favourable for such importation. In 1925, however, it became practicable to import gold, and several large shipments were received from the United States, from South Africa, and from London.

On 29th April, 1925, the Commonwealth Government withdrew the embargo on the export of gold, thus restoring the gold standard of exchange concurrently with Great Britain, and the exchange rates quoted by the Australian Banks were revised, the discount on sixty days' sight drafts (buying) being reduced to 50s. on 6th May. After some fluctuations during the interval the rates were raised by 7s. 6d. per cent. in April, 1927, from the same level as was quoted in June, 1925. This action was taken on account of the great volume of imports as compared with exports, and it was the commencement of an upward movement which persisted throughout the next three years. The movement gathered force under the influence of a sudden shrinkage in the value of export commodities, a cessation of oversea borrowing and restrictions on the export of gold, and there was a series of rapid increases between January and March, 1930, and another marked increase in the month of October of the same year. Thus the exchange rates as quoted by the banks reached the highest level yet recorded and even at these rates exchange was not readily available, operations being restricted with a view to checking the excessive flow of imports.

Later in the year a scheme was formulated for the pooling of the London funds of the Australian banks for the purpose of meeting national interest obligations, and it has been arranged by the trading banks and the Loan Council that the Governments are to have first call upon the funds. Formerly it had been the practice of the Australian Governments to use loan moneys to pay interest accruing abroad and to apply an equivalent amount of revenue to loan expenditure in Australia.

The variations in the rates of exchange, Australia on London since October, 1924, are shown below. The rates are discounts per £100 except where marked par or "p" to indicate premium.

Date.	Buying.				Selling.			
	T.T.	O.D.	30 days.	60 days.	T.T.	O.D.	30 days.	60 days.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1924—15 October ...	70 0	77 6	85 0	92 6	50 0	55 0	60 0	65 0
1925— 6 May ...	15 0	20 0	40 0	50 0	10 0	17 6	27 6	37 6
10 June ...	5 0	17 6	27 6	37 6	par.	7 6	15 0	22 6
4 December ...	5 0	20 0	30 0	40 0	par.	7 6	15 0	22 6
1926— 9 June ...	5 0	17 6	27 6	37 6	2 6p	5 0	12 6	20 0
12 July ...	2 6	15 0	25 0	35 0	5 0p	2 6	10 0	17 6
5 August ...	par.	12 6	22 6	32 6	7 6p	par.	7 6	15 0
1 October ...	5 0	17 6	27 6	37 6	2 6p	5 0	12 6	20 0
1927—20 April ...	2 6p	10 0	20 0	30 0	10 0p	2 6p	5 0	12 6
27 June ...	5 0p	7 6	17 6	27 6	12 6p	5 0p	2 6	10 0
25 July ...	7 6p	5 0	15 0	25 0	15 0p	7 6p	par.	7 6
7 Nov. ...	7 6p	7 6	17 6	27 6	15 0p	7 6p	par.	7 6
1928—19 March ...	10 0p	5 0	15 0	25 0	20 0p	12 6p	5 0p	2 6
4 October ...	10 0p	5 0	16 3	26 3	20 0p	12 6p	5 0p	2 6
1929—22 July ...	15 0p	par.	11 3	21 3	25 0p	17 6p	10 0p	2 6p
3 September..	20 0p	5 0p	6 3	16 3	30 0p	22 6p	15 0p	7 6p
10 October ...	25 0p	10 0p	2 6	13 9	35 0p	26 3p	17 6p	8 9p
18 December...	32 6p	17 6p	5 0p	6 3	42 6p	33 9p	25 0p	16 3p
1930—28 January ...	40 0p	25 0p	12 6p	1 3p	52 6p	43 9p	35 0p	26 3p
17 February ...	50 0p	35 0p	22 6p	11 3p	62 6p	53 9p	45 0p	36 3p
10 March ...	70 0p	55 0p	42 6p	31 3p	82 6p	73 9p	65 0p	56 3p
24 March ...	122 6p	107 6p	95 0p	83 9p	130 0p	121 3p	112 6p	103 9p
9 October ...	170 0p	157 6p	148 9p	141 3p	180 0p	175 0p	165 0p	165 0p

The buying rates for "90 days" drafts (which are not shown in the foregoing statement), were quoted at 10s. less than "60 days" drafts until October, 1929, when the difference was increased to 11s. 3d. It was reduced to 7s. 6d. in October, 1930.

The margin between the buying and selling rates for telegraphic transfers was increased from 5s. per cent. to 7s. 6d. in June, 1926, to 10s. per cent. in March, 1928, and to 12s. 6d. in January, 1930, and reduced to 7s. 6d. on 24th March, 1930, and increased to 10s. in October, 1930.

The Commonwealth Bank of Australia.

The Commonwealth Bank of Australia was established under an Act passed by the Federal Government in 1911, and amended in later years. The bank commenced operations on 15th July, 1912, by opening a savings bank department. Ordinary banking business was commenced on 20th January, 1913. The head office is in Sydney, and branches have been established in the principal cities and towns of Australia, in London, and in the territory of New Guinea.

The Commonwealth Government is responsible for the payment of all moneys due by the bank, and debts due to the bank by other banks have the same priority as debts due to the Commonwealth. The affairs of the bank are subject to inspection and audit by the Auditor-General of the Commonwealth. The bank is authorised to conduct general banking business, to exercise the functions of an ordinary bank of issue, and, with the approval of the Treasurer of the Commonwealth, it may take over the business of banking corporations. Since 1920 the control of the Australian note issue has been one of the functions of a separate department of the Commonwealth Bank. The Savings Bank Department was separated from the bank in June, 1928, and it is managed by a Commission of three persons, one being a director of the Commonwealth Bank. Further details regarding the Commonwealth Savings Bank thus established are stated on page 197.

An amending Act was passed in 1924 to make provision for extending the scope of the banks operations with the object of making it a central reserve bank, and in the following year a rural credits department was established. In May 1930 a bill was introduced in the Parliament of the Commonwealth to authorise the establishment of a central reserve bank with control of the note issue, power to discount trade bills and to negotiate public loans. The establishment of a central reserve bank would involve material alteration in the constitution of the Commonwealth Bank and a bill for this purpose was read for the first time on 23rd May 1930, discussion being deferred pending the decision of Parliament in regard to the Central Reserve Bank Bill which the Senate has submitted to a Select Committee for report.

The Commonwealth Bank is controlled by a Board of Directors, composed of the Governor of the Bank, the Secretary of the Commonwealth Treasury, and six other directors with experience in agriculture, commerce, finance, or industry. The last-mentioned are appointed by the Governor-General for terms ranging, in the case of the first appointments, from two to seven years, so that one will retire in each year, but will be eligible for reappointment. Subsequent appointments will be for seven years. The Governor of the Bank is its chief executive officer and is appointed for a term of seven years, with eligibility for reappointment. A Board of Advice in London, consisting of three members selected by the Board of Directors, exercises such powers as the latter delegates to it. A director or officer of any other bank may not be appointed as a director of the bank nor as a member of the London Board.

The Board of Directors may be authorised by proclamation to fix and publish the rate at which it will discount and rediscount bills of exchange. The settlement of balances between the banks trading in Australia is conducted by means of cheques drawn on the Commonwealth Bank, and for this purpose the other banks keep funds with the Commonwealth Bank.

The capital of the Bank is limited to £20,000,000, consisting of £4,000,000 from accumulated profits, a sum not exceeding £6,000,000 which the Federal Treasurer is authorised to borrow, and such sum as may be raised by the sale and issue of debentures up to £10,000,000. The Bank will pay the interest on any loan raised for its purposes. It has not yet exercised its authority to issue debentures.

Of the net profits of the Bank—except those of the Note Issue and the Rural Credits Departments—half are payable to the Bank reserve fund and half to the National Debt Sinking Fund. Three-fourths of the annual profits from the Note Issue Department are paid to the Commonwealth Treasury and one-fourth to the capital account of the Rural Credits Department, the limit of these latter payments being £2,000,000. The aggregate profits to 30th June, 1930, excluding the Note Issue Department, amounted to £8,336,125, which have been distributed as follows:—General Bank, capital account £4,000,000, and reserve fund, £868,809; Rural Credits Department reserve fund £89,669, and development fund, £89,669; Savings Bank Reserve Fund, £1,411,578; and National Debt Sinking Fund £1,876,400. Up to 30th June, 1930, an aggregate amount of £1,308,291 had been paid to the Rural Credits Department capital account from the profits of the Note Issue Department.

The Rural Credits Department was established towards the end of 1925 to assist the marketing of products of the rural industries. This department may make advances upon the security of primary produce, viz., wool, grain, butter, cheese, fruits, hops, cotton, sugar, and any other produce as may be prescribed. The advance may not be for a period of more than one year. The advances may be made upon the security of primary produce to the general banking section of the Commonwealth Bank, to other banks, to co-operative associations, and to such other bodies as may be specified by proclamation. In lieu of making advances the department may discount bills secured upon primary produce on behalf of any of these institutions.

Capital for the Rural Credits Department is provided from the profits of the note issue, as already indicated, and additional capital may be provided by loans from the Federal Government up to a limit of £3,000,000. The Commonwealth Bank may raise further funds for the department by issuing debentures up to an amount not exceeding the greater of the following, viz., (a) advances on primary produce outstanding at the date of the issue of the debentures; or (b) four times the sum of (i) outstanding loans to the department from the Federal Government, (ii) moneys received from the profits of the note issue, (iii) the credit balance of the Rural Credits Department Reserve Fund. The dates for the redemption of the debentures are to coincide, as nearly as practicable, with the dates for the repayment of the advances made. In addition, the general banking department of the Commonwealth Bank may make advances to the Rural Credits Department of such amounts and subject to such terms and conditions as the Board of Directors determines.

The assets of the Rural Credits Department are available, firstly, for meeting liabilities other than loans from the Federal Government and interest thereon; and secondly, for repaying such loans with interest.

One half of the net profits are payable to the reserve fund of the Department and one half to a fund to be used, at the discretion of the Board of Directors, for the promotion of primary production.

The following statement shows the liabilities and assets of the Commonwealth Bank (including the Rural Credits and the Savings Bank departments) in New South Wales in the June quarter of each of the years 1927 to 1930. The particulars for 1929 and 1930 do not include the Savings Bank:—

Particulars.	June Quarter.			
	1927.	1928.	1929. *	1930. *
Liabilities—	£	£	£	£
Deposits at interest—				
Savings Department ...	9,890,238	10,434,395	...	...
Government ...	13,832	12,728	4,642	7,630
Ordinary ...	2,390,722	2,623,975	2,786,522	3,945,215
Deposits not bearing interest—				
Government ...	4,190,605	1,484,915	1,598,812	1,585,636
Ordinary ...	3,351,904	3,796,694	4,115,525	3,794,745
Total deposits ...	19,837,301	18,352,707	8,505,501	9,333,226
Other liabilities ...	2,298,956	2,946,234	3,664,098	6,094,284
Total Liabilities in New South Wales ...	22,136,257	21,298,941	12,169,599	15,427,510
Assets—				
Coin and Bullion ...	204,358	147,349	186,563	339,391
Australian Notes ...	2,118,571	998,042	1,067,081	2,174,161
Advances, etc. ...	6,671,684	6,095,783	5,777,069	6,966,912
Government Securities ...	18,139,346	21,531,683	12,242,680	13,949,102
Landed Property ...	294,870	284,249	243,353	186,371
Other Assets ...	1,223,673	793,596	65,649	108,531
Total Assets in New South Wales ...	28,652,502	29,850,702	19,582,395	23,724,468

* Excluding particulars of Commonwealth Savings Bank.

The liabilities classified as "other" in the table consist for the most part of amounts deposited with the Commonwealth Bank by the trading banks in connection with the clearing transactions.

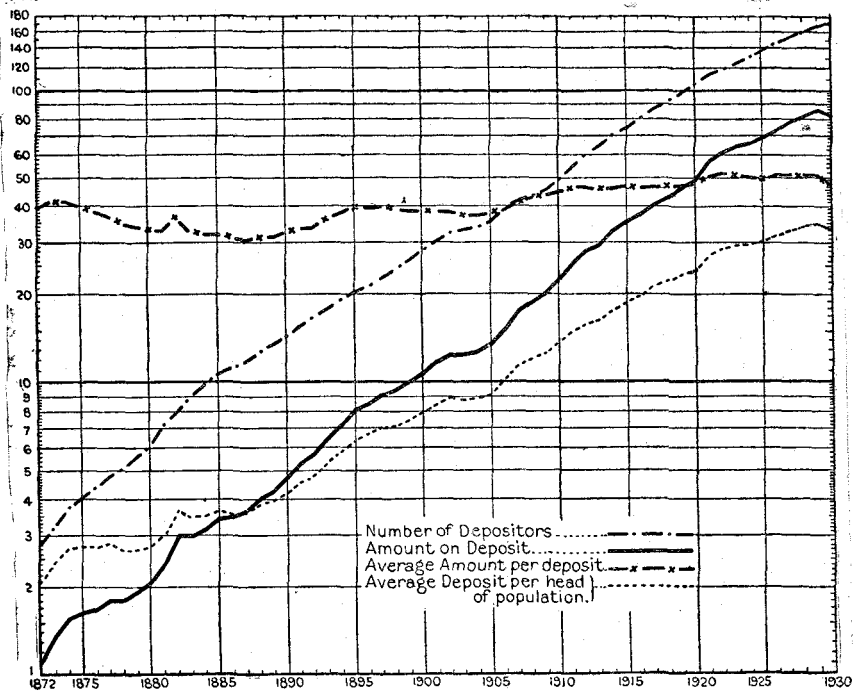
The total liabilities and assets of the bank in New South Wales and elsewhere at 30th June, 1913, amounted to £5,055,382. At 30th June, 1930, the liabilities and assets of the general bank and rural credits departments amounted to £52,354,225, those of the Note Issue Department to £44,954,326 and those of the Savings Bank to £52,049,967.

SAVINGS BANKS.

Savings bank business in New South Wales is conducted by the Government Savings Bank of New South Wales, and by the Commonwealth Savings Bank, and extensive use is made of the facilities offered for the accumulation of small sums on which interest is paid.

Under reciprocal arrangements, transfers may be made on behalf of depositors between the banks and similar institutions in other States of the Commonwealth and the Post Office Savings Banks of the United Kingdom and New Zealand.

SAVINGS BANKS, 1872 to 1930.
(Ratio Graph.)



The numbers at the side of the graph represent 10,000 depositors, £1,000,000 of deposits, £1 of average amount per depositor, and £1 of average deposit per head of population. The diagram is a ratio graph. The vertical scale is logarithmic, and each curve rises and falls according to the rate of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

The following statement shows the number of accounts and the amount of deposits in the State and Commonwealth savings banks in New South Wales at the end of various years. The figures do not include School Savings Bank accounts of which particulars are shown on page 196 :—

At 30th June.	Accounts.	Savings Bank Deposits.				
		State Bank.	Commonwealth Bank.	Total.	Per Account.	Per head of Population.
	No.	£	£	£	£ s. d.	£ s. d.
1880*	61,531	2,075,856	...	2,075,856	33 14 9	2 17 0
1890*	143,826	4,730,469	...	4,730,469	32 17 10	4 5 10
1900*	282,643	10,901,382	...	10,901,382	38 11 5	8 2 4
1910*	478,006	20,823,764	...	20,823,764	43 11 3	12 18 0
1921	1,126,157	50,802,137	6,592,304	57,394,441	50 19 4	27 5 8
1926	1,446,432	64,306,726	9,436,386	73,743,112	50 19 8	31 15 11
1927	1,528,287	67,757,101	10,493,644	78,250,745	51 4 0	32 19 9
1928	1,599,007	70,518,947	10,974,932	81,493,879	50 19 4	33 12 2
1929	1,685,181	73,725,827	11,832,307	85,558,134	50 15 5	34 14 6
1930	1,729,553	70,369,197	11,899,198	82,268,395	47 11 4	33 1 8

* As at 31st December.

In 1928-29 a sum of £3,043,110 was added as interest to depositors' accounts by the banks, and the net increase in the amount at depositors' credit was £4,064,255. In 1929-30 interest amounted to £3,117,342 and there was a decrease in deposits of £3,289,739, due in part to withdrawals for investment in Commonwealth Government loans.

The number of accounts does not represent individual depositors, as a certain amount of duplication is caused by persons having deposits in both banks, and by the inclusion of joint accounts and accounts of societies, trusts, etc., whose members have personal accounts also. It is apparent, however, that a large proportion of the people practise thrift through the medium of the savings banks. Notwithstanding the inflation of the currency, the average amount per account has not varied greatly since 1910.

The Government Savings Bank of New South Wales.

An institution named the Savings Bank of New South Wales was established in 1832 under the control of trustees nominated by the Government. This bank continued in operation until absorbed by the Government Savings Bank of New South Wales in 1914.

The Government Savings Bank of New South Wales was established in 1871 as a post office savings bank under the control of the Postmaster-General of New South Wales. In 1901, when the Postal department was transferred to the Commonwealth, the control of the bank was vested in the State Treasurer, and in 1907 it was placed under the control of three commissioners. By agreement with the Commonwealth the agencies of the bank were retained at post offices until the establishment of the Commonwealth Savings Bank in 1912. In that year separate branches and agencies were opened by the Government Savings Bank throughout New South Wales.

The scope of the bank was enlarged by the addition of an Advances to Settlers Department in 1907, to take over the functions of the Advances to Settlers Board. This department was merged into the Rural Bank in 1921. In 1914 the Advances for Homes Department was created, and in 1925 the administration of the outstanding loans of the Government Housing Department was transferred to the Bank. In 1910 a Closer Settlement Promotion Department was opened in the bank to finance intending settlers out of the proceeds of debentures issued under Government guarantee by the bank. These activities were amalgamated with other closer settlement operations under the control of the Lands Department on 1st July, 1919.

Savings Bank Department.

In the Savings Bank Department deposits of one shilling upwards are received, and interest is paid on the minimum monthly balances. From 1st July, 1920, to 30th September, 1928, interest was calculated at the rate of 4 per cent. per annum on balances up to £500, and 3½ per cent. on any excess up to £1,000 on personal accounts. The rates of interest paid on accounts of institutions not carried on for profit were 4 per cent. up to £1,000 and 3½ per cent. beyond that limit. Since 1st October, 1928, the rates have been 4 per cent. up to £1,000 on personal and trust accounts, and on municipal and shire accounts, other than sinking funds; and 4 per cent. on total balances in respect of the sinking funds of municipalities and shires, and on accounts of institutions not conducted for profit.

The Commissioners are required by law to hold 20 per cent. of the deposits at call or short notice.

The balance-sheet at 30th June, 1929, showing how the funds were held, is as follows:—

<i>Liabilities.</i>	£	<i>Assets.</i>	£
Depositors' Balances	73,960,679	Cash	1,809,803
Guarantee and other Funds ...	72,684	Deposits at Call	2,420,084
Mortgage and General Investments Depreciation Account	62,360	Fixed Deposits—Bank ...	8,447,766
Reserve Fund	1,400,000	Treasury	6,623,876
Profit and Loss Account	10,283	Government Securities—	
Other Liabilities	1,125,919	State	30,832,907
		Commonwealth	4,005,414
		Municipal Council Loans ...	2,872,151
		Rural Bank Stock	4,674,972
		Advances for Homes Stock ..	9,942,480
		Loans on Mortgage and Contracts of Sale	2,920,973
		Bank Premises	1,820,000
		Other Assets	261,499
Total	£76,631,925	Total	£76,631,925

Approximately 25 per cent. of the assets of the bank consisted of cash and bank and Treasury deposits, 49 per cent. comprised Government and Municipal securities, 6 per cent. were used in the Rural Bank Department, and 13 per cent. in the advances for Homes Department.

The gross earnings of the Savings Bank Department for the year ended 30th June, 1929, were £3,498,450, of which £2,643,781 were credited as interest to depositors' accounts, and £436,215 were absorbed as expenses of management. The net profits for the year were £418,454.

At 30th June, 1929, there were 189 branches and 627 agencies of the bank, and the classification of depositors' balances at that date was:—

Deposit Series.	Accounts.	Amount of Deposits.
	No.	£
Under £1*	291,786*	55,269
£1 to £19	599,332	2,575,894
£20 to £39	219,668	10,583,642
£100 to 499	158,047	35,406,946
£500 to £749	22,464	13,274,419
£750 to £999	6,900	5,963,223
£1,000 and over	5,081	5,884,316
Special Thrift Accounts	14,269	44,490
Total	1,318,177	73,791,229
School Savings Banks	114,533	169,380

*Inoperative and non-interest bearing.

The system of school savings banks, established in connection with State schools in 1887, was transferred to the control of the Government Savings

Bank of New South Wales in 1925. The number of accounts and the amount at credit at the end of the last six years are shown below. These particulars are not included in the figures in the previous table.

At 30th June.						Depositors.	Deposits.
						No.	£
1925	...	...	...	...	...	46,158	35,307
1926	...	...	...	...	...	62,449	64,538
1927	...	...	...	...	...	78,205	100,987
1928	...	...	...	...	...	92,772	133,876
1929	...	...	...	...	...	114,533	169,380
1930	...	...	...	...	...	138,678	197,035

Rural Bank Department.

An account of the origin and operations of the Rural Bank is given in the chapter "Rural Settlement," of this Year Book.

The Rural Bank receives fixed deposits as well as deposits at current account operated on by cheque and subject to the usual trading bank conditions. Advances are made to persons engaged in primary industries by way of overdraft, loans repayable by instalment and fixed loans for limited terms.

The balance-sheet of the Rural Bank at 30th June, 1929, was:—

<i>Liabilities.</i>	£	<i>Assets.</i>	£
Inscribed Stock issued to Savings Bank	4,674,972	Cash	170,595
Rural Bank Stock and Debentures, etc.*	1,142,869	Investments—	
Deposits and Other Liabilities to Customers	9,206,694	Government Securities ...	428,074
Reserve Fund	473,969	Fixed Deposits	927,950
Balances due to other Banks ..	118,099	Advances—	
		Long Term and Fixed ...	5,951,428
		Overdrafts	6,938,041
		Other debts of Customers ...	209,969
		Due by other Departments ..	990,546
Total	£15,616,603	Total	£15,616,603

* Special loan raised for Rural Bank.

The items shown above, with the exception of inscribed stock issued to the Savings Bank, and Treasury stock, are included in the particulars of trading banks published on page 180 *et seq.*

The net profit for the year was £67,746, which was transferred to the reserve fund.

Advances for Homes Department.

An account of the operations of the Advances for Homes Department appears in the chapter "Social Condition" of this Year Book.

The Department does not receive deposits, and its funds have been obtained mainly by loan from the Savings Bank Department and by the issue of a special Treasury loan. In the latter part of the year 1928 arrangements were made to authorise the Commissioners to obtain advances from the Housing Fund constituted by the Commonwealth Government, and the sum of £1,000,000 was made available for the first year's operations. Up to 30th June, 1929, an amount of £127,000 had been drawn by the Commissioners of the bank and £123,535 had been advanced.

The balance-sheet at 30th June, 1929, was as follows:—

Liabilities.				Assets.			
			£				£
Inscribed Stock issued to Sav-				Loans for Homes			11,472,529
ings Bank		9,942,480		Invested in Government Se-			
Treasury Stock, etc.		1,259,590		curities		451,079	
Liability to Borrowers		286,734		Cash at Bankers		70,822	
Reserve Fund		505,626					
Total				Total			
£ 11,994,430				£ 11,994,430			

The net balance of profit in 1928-29 was £67,471, which was transferred to the reserve fund.

The Government Housing Department of the bank was created in terms of the Housing (Amendment) Act of 1924, which provided for the abolition of the Housing Board, whose operations were described in earlier issues of the Year Book, and for the transfer to the Commissioners of the Savings Bank of properties subject to agreement for sale and securities for advances under the Housing Act. At 30th June, 1929, the number of loans current was 877 and the amount of principal outstanding £536,242.

The following statement shows the growth of loans current in each department of the bank in recent years, excluding from account Government and Municipal securities held:—

30th June.	Savings Bank.	Rural Bank.		Advances for Homes.*	Government Housing Department.	Total Loans administered by Government Savings Bank.
		Long Term & Fixed Loan.*	Overdrafts.			
	£	£	£	£	£	£
1925	2,179,456	5,721,678	2,830,915	7,145,187	262,916	18,140,152
1926	2,135,806	5,661,868	3,618,597	8,283,940	616,717	20,316,928
1927	2,364,905	5,783,776	4,746,220	9,244,999	587,518	22,727,418
1928	2,724,077	5,759,410	6,098,405	10,431,837	562,470	25,576,199
1929	2,920,973	5,951,428	6,938,041	11,424,862	536,242	27,771,546

* Excluding accrued interest.

Commonwealth Savings Bank.

The Savings Bank Department of the Commonwealth Bank was opened on 15th July, 1912, and its business has been transacted at all branches of the Commonwealth Bank as well as at numerous post offices and agencies. Legislation was passed in 1927 and proclaimed on 9th June, 1928, for the purpose of establishing this department of the Commonwealth Bank as a separate institution—the Commonwealth Savings Bank of Australia. It is controlled by a commission consisting of a chief commissioner and two other persons, and its funds are available for long-term investments, *e.g.*, loans on the security of land, advances for homes or for warehouses and stores for primary products, in debentures of the Rural Credits Department of the Commonwealth Bank and on fixed deposits with the Commonwealth Bank. One member of the Savings Bank Commission is a director

of the Commonwealth Bank nominated by the Board of Directors. This facilitates co-operation between the two institutions and enables the Commission to obtain the advice of the Board of Directors regarding the investment of the savings bank funds.

Deposits are received in sums of one shilling or more, and interest has been allowed on the minimum monthly balances at the rate of $3\frac{1}{2}$ per cent. per annum up to £1,000 and at 3 per cent. for an additional £300 on personal accounts, and at the rate of $3\frac{1}{2}$ per cent. per annum on the whole credit balance of bodies such as friendly societies not operating for profit. On 1st October, 1928, the rate on personal accounts up to £500, and on the deposits of friendly societies, etc., was raised to 4 per cent. The growth of deposits since 1921 is shown in the table on a previous page.

The total liabilities of the Commonwealth Savings Bank at 30th June, 1930, amounted to £52,049,967, including reserve fund £1,411,579, and depositors' balances £50,049,724. The assets consisted of Government and other public securities £48,396,687; coin and cash balances and Australian notes, £1,612,234; other, £2,041,046.

Savings' Bank Deposits in Australia.

The number of accounts and the amount of deposits in savings banks in each State of Australia as at 31st March, 1930, are shown in the following table. The figures are inclusive of the School and Penny Saving Banks:—

State.	Accounts.	Deposits.		
		Total.	Per Account.	Per head of Population.
	No.	£	£ s. d.	£ s. d.
New South Wales ...	1,860,042	80,907,000	43 9 11	32 11 6
Victoria	1,612,428	68,241,000	42 6 5	38 5 2
Queensland	497,037	23,377,000	47 0 8	25 0 3
South Australia...	565,163	23,471,000	41 10 7	40 9 0
Western Australia ...	364,604	11,328,000	31 1 5	27 2 9
Tasmania... ..	175,353	5,683,000	32 8 2	26 6 3
Northern Territory ...	1,325	46,000	29 12 2	9 19 2
Federal Capital Territory	9,021	267,000	34 9 2	29 10 7
Total	5,084,973	213,320,000	41 19 0	33 3 7

The amount on deposit in the savings banks in New South Wales was far in excess of that in any other State, but the average per account was exceeded in Queensland (where only one savings bank is in operation), and the amount per head of population in South Australia and in Victoria.

Deposits in all Banks in New South Wales.

In June, 1929, the net amount of deposits at credit of private and public accounts in the savings and the trading banks in New South Wales was £207,576,809, or £84 4s. 10d. per head of population after deducting from the combined totals a sum of £12,305,274 deposited with trading banks by the savings banks. A similar deduction amounted to £10,022,438 in June, 1930, when the net amount of deposits was £202,664,282, or £81 10s. per head.

The figures for the savings banks in the following table represent the deposits on 30th June in each year, and those for the trading banks are the averages of the June quarter:—

June.	Net Deposits bearing Interest.			Net Deposits not bearing Interest.*	All Deposits.	
	Savings Banks.	Trading Banks.*	Total.		Total.	Per head of Population.
	£	£	£	£	£	£ s. d.
1924	66,162,054	43,748,948	109,911,002	52,514,431†	162,425,433†	72 18 0
1925	69,114,126	48,623,465	117,742,591	54,466,766†	172,209,357†	75 15 3
1926	73,743,112	52,148,006	125,891,118	58,135,332	184,026,450	79 6 10
1927	78,230,745	55,888,031	134,138,776	55,064,313	189,203,089	79 15 2
1928	81,493,879	63,483,867	144,977,746	54,018,901	198,996,647	82 1 5
1929	85,558,134	68,919,541	152,477,675	55,099,134	207,576,809	84 4 10
1930	82,268,395	73,234,666	155,503,061	47,161,221	202,664,282	81 10 0

* Excluding deposits lodged by Savings Banks in Trading Banks.

† Approximate.

In addition there were deposits by children in the School Savings Bank which amounted to £169,380 at 30th June, 1929, and to £197,035 at 30th June, 1930.

The amounts of interest-bearing deposits in the trading banks shown above differ from the figures in preceding tables, which include the savings deposits in the Commonwealth Bank up to 1928 inclusive and the deposits of the savings banks in the trading banks.

INCORPORATED COMPANIES.

The legislation relating to incorporated companies in New South Wales is contained principally in the Companies Act, 1899, the amending Acts of 1900, 1906, and 1907, the Companies (Death Duties) Act, 1901, and the Companies (Registration of Securities) Act, 1918, providing for the registration of debentures issued by companies. These enactments follow the general provisions of Imperial Acts relating to companies, with variations embodying the results of local experience.

The formation of a company, association, or partnership of more than ten persons in a banking business, or of twenty in any other business trading for profit, is prohibited, unless it is registered under the Companies Act, or incorporated under some other enactment, by royal charter, or by letters patent, or as a no-liability company.

The liability of members of a company may be limited by shares or by guarantee, or it may be unlimited. Under certain conditions associations formed for the purpose of promoting commerce, art, science, religion, charity, or other useful object, may be registered with limited liability. Special provision is made to regulate the formation of no-liability mining companies, and the liability of members for calls and for contributions to meet debts and liabilities in the event of winding-up ceases upon registration, shares upon which calls are unpaid being forfeited.

Local limited companies (i.e., those whose original registration is in New South Wales) are required to file an annual summary statement of their capital, and a list of shareholders with the amount of their shares, besides an original copy of their memorandum and articles of association and amendments thereto and other particulars as to the location of their registered office. In addition to the foregoing particulars no-liability mining companies and foreign companies, i.e., those whose original registration is outside New South Wales, are required to file an annual balance-sheet and a

list of debentures or other securities secured on the property of the company.

Particulars relating to the registration of new companies in New South Wales and of increases of capital are shown below, the figures for the quinquennial periods representing the annual average:—

Period.	Limited Companies.				No-Liability Mining Companies.			
	New Companies.		Increases of Capital.		New Companies.		Increases of Capital.	
	No.	Nominal Capital.	No.	Nominal Amount.	No.	Nominal Capital.	No.	Nominal Amount.
		£		£		£		£
*1901-05 ...	113	3,104,766	13	483,990	25	301,766	5	24,175
*1906-10 ...	231	5,184,658	23	1,010,710	45	430,112	7	29,634
*1911-15 ...	383	10,263,455	58	3,468,139	20	308,017	3	31,395
*1916-20 ...	321	17,465,293	93	3,624,272	14	284,271	1	11,400
*1921-25 ...	528	16,945,676	94	5,585,987	16	273,350	3	16,690
1926 ...	695	42,732,975	119	15,669,740	27	490,150	1	5,600
1927 ...	774	29,413,417	116	9,520,500	9	485,500	...	...
1928 ...	770	44,985,128	97	8,809,150	28	749,600	...	...
1929 ...	737	36,070,615	50	7,038,800	33	1,599,650	3	9,000

* Average per annum.

The total number of limited companies which appeared to be in active existence in New South Wales at the end of 1929 was 6,979, of which 6,044 were local and 935 were "foreign," as already defined. During 1929 there were registered 314 winding-up orders and resolutions in respect of local companies.

Between 1901 and 1915 there was a steady increase in the promotion of limited companies, principally joint-stock companies, and a large amount of capital was invested in the expansion of existing enterprises, especially in the years immediately preceding the outbreak of the war. In 1915 and 1916 there was a noticeable slackening, and regulations under the War Precautions Act prohibited the issue or subscription of fresh capital unless under permit, the object being to encourage the flow of capital into loans for war purposes. After 1917 the number of registrations began to rise again, as industrial and commercial enterprises prospered in consequence of war expenditure and over 800 companies with nominal capital amounting to £16,700,000 were registered in 1920.

The figures for the last four years also have been on a high level, and the aggregate capital was unusually large in 1926 and 1928. The companies registered in 1926, viz., 695 with nominal capital of £42,732,975, included a number with very large capital, *e.g.*, one with £5,000,000 and five with £1,000,000 or more. In 1928 the registrations included two companies with nominal capital of £5,000,000 and six others with £1,000,000 or over.

During the period 1911 to 1920 the number of foreign companies registered was, on an average, about 56 per annum. The number registered in each of the past nine years was as follows:—

No.	Nominal Capital.	No.	Nominal Capital.
	£		£
1921 ...	72 31,121,396	1926 ...	83 17,752,806
1922 ...	58 29,143,312	1927 ...	69 15,192,065
1923 ...	69 34,971,400	1928 ...	81 10,849,780
1924 ...	83 14,131,711	1929 ...	74 11,759,100
1925 ...	78 94,833,857		

The particulars for the year 1925 include the Canadian Pacific Railway with a nominal capital of £75,000,000.

CO-OPERATIVE SOCIETIES.

The laws relating to co-operation in New South Wales are embodied in the Co-operation, Community Settlement, and Credit Act, 1923, which, with amendments passed in 1924, 1928, and 1929, is known now as the Co-operation Acts, 1923-1929.

The Act is a comprehensive measure, affording ample scope for co-operative development. It authorises co-operative societies to engage in all forms of economic activity except banking and insurance.

Societies may be of various kinds, viz.: (a) rural societies to assist producers in conducting their operations and in marketing products; (b) trading societies to carry on business, trade, or industry; (c) community settlement societies to acquire land and settle or retain persons thereon and to provide any common service or benefits; (d) community advancement societies to provide any community service, *e.g.*, water, gas, electricity, transport, recreation, etc.; (e) building societies—terminating or permanent—to assist members to acquire homes or other property; (f) rural credit societies to make or arrange loans to members for the purpose of assisting rural production; (g) urban credit societies to assist members to acquire plant, furniture, etc., or to commence business or trade; (h) investment societies to enable members to combine to secure shares in a company or business or to invest in securities. Societies of the same kind may combine into co-operative associations, and such associations of all kinds may form unions.

Societies are corporate bodies with limited liability except that a rural credit society may be formed with unlimited liability. Existing societies (with the exception of seven permanent building societies) were deemed to have applied for registration under the new Act, and were required to alter their rules to conform thereto.

Co-operative companies registered as limited companies under the Companies Act, 1899, are permitted to transfer their registration to the Co-operation Act, without winding up or loss of identity. The use of the word "co-operative" by any company not specially authorised in that regard or by any person or firm as part of a trade or business name is prohibited, and such bodies may not in any manner hold out that their trade or business is co-operative.

Adequate provision is made to safeguard the funds and financial interests of the societies, the issue of shares and the disposition of the funds are regulated, the power to raise loans and to receive deposits is limited, reserve funds must be established, and the accounts of the societies are subject to inspection and audit. A member may not hold more than one-fifth of the shares. No dividend may be paid in respect of shares in a rural credit society with unlimited liability, and in other cases the maximum rate of dividend is 8 per cent. per annum. Powers of supervision are vested in the Registrar, who registers the societies and their rules, adjudicates upon matters in dispute, and may inspect accounts if necessary.

An Advisory Council has been appointed to submit recommendations to the Minister with respect to regulations and model rules of co-operative societies, the appointment of committees, and other action for promoting co-operation. The Council consists of the Registrar and of persons appointed by the Governor to represent different forms of co-operative enterprise.

Co-operative effort for production is a prominent feature of the dairying industry, most of the butter factories being organised on a co-operative basis.

The following table shows particulars relating to various classes of co-operative societies, other than building societies, in the year 1928-1929.

Type of Society.	Number at 30th June, 1929.	Number supplying Returns for Year.	Number of Members.	Amount of Share Capital Paid-up.	Surplus and Reserves.
				£	£
Rural	107	89	24,973	449,783	429,131
Trading	68	46	59,350	1,034,600	448,802
Community Settlement	1	1	310	692	(—) 233
Community Advancement	18	12	732	3,259	4,058
Investment	4	3	1,268	34,648	1,528
Total	198	151	86,633	1,522,982	883,286

There were also at 30th June, 1929, two associations of co-operative societies, one, comprised by sixteen co-operative trading societies, with a share capital of £72,345 and reserves and undistributed surplus amounting to £46,351. The other association formed to control the marketing of prunes on behalf of the societies in the Young district had distributed £7,630 to component societies in the form of advances, funds being obtained from the Rural Bank on the security of the crop. A third association of rural societies in the Murrumbidgee Irrigation Area was registered in July, 1929.

The difference between the number of societies in existence at the end of the year and the number of returns received represents mainly societies in liquidation and those registered during the year from which returns were not due.

Further details regarding the co-operative movement are set forth in the chapters of this book relating to agriculture and the dairying industry.

Trading Societies.

The transactions of co-operative trading societies during the last five years are given in the following table:—

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Number of Societies	53	57	58	66	68
„ Returns	40	46	51	45	46
Number of Members	45,197	51,649	54,610	57,775	59,350
Liabilities—	£	£	£	£	£
Share Capital	643,609	791,002	868,395	977,627	1,034,600
Reserves and Net Profits	323,904	366,882	435,315	444,469	448,802
Other Liabilities	241,725	277,685	367,388	365,696	468,477
Total Liabilities £	1,209,238	1,435,569	1,671,098	1,787,792	1,951,879
Assets—					
Freehold, Plant, etc.	373,053	428,876	718,160	804,211	895,193
Stock	468,041	445,582	490,703	501,190	502,817
Other Assets	368,144	561,111	462,235	482,391	553,869
Total Assets £	1,209,238	1,435,569	1,671,098	1,787,792	1,951,879
Value of Stocks at beginning of year	442,605	445,709	449,135	481,995	536,806
Purchases	2,858,321	2,658,153	2,772,383	2,851,771	2,825,047
Expenses, Interest, etc.	476,541	551,222	595,051	670,236	749,543
Balance of Surplus on trade of year	367,231	366,412	411,214	408,274	323,809
Total	£ 4,144,695	4,021,496	4,227,783	4,412,276	4,435,205
Sales, etc.	3,629,441	3,520,904	3,680,785	3,840,014	3,863,524
Discounts, etc.	47,216	55,010	56,235	71,072	68,968
Value of Stocks at end of year	468,041	445,582	490,703	501,190	502,713
Total	£ 4,144,698	4,021,496	4,227,783	4,412,276	4,435,205

The trading societies are mainly consumers' distributive societies organised on the Rochdale plan of "dividend upon purchase," conducting retail stores. They buy their supplies largely from a wholesale co-operative society with which a considerable number of them are affiliated. The societies have met with success in the Newcastle and other mining districts, and to a limited extent in other centres where large numbers of industrial workers reside.

Rural Societies.

There were 107 rural societies at 30th June, 1929. Their objects covered a variety of activities, including the manufacture and distribution of butter, cheese and bacon, the packing and marketing of fruit, and the purchase of poultry feed or general requisites.

Returns were received from eighty-nine of these societies in respect of their operations during 1928-29, and from the final accounts the following statement has been prepared:—

Dr.	£	Cr.	£
Stock at beginning of year ...	319,280	Proceeds of products sold ...	7,848,368
Manufacturing charges ...	486,768	Other income ...	180,459
Expenses ...	791,709	Stocks at close of year ...	336,619
Interest paid ...	23,603		
Payments to suppliers ...	6,649,929		
Surplus ...	94,157		
Total ...	8,365,446	Total ...	8,365,446

The rural societies are for the most part new societies formed since the commencement of the Co-operation Act of 1923 or organisations which had been registered previously as companies under the Companies Act.

A statement of the liabilities and assets of these societies in the last five years is shown below.

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Societies—					
Number at 30th June	36	64	90	102	107
Returns received ...	27	41	82	81	89
Members ...	2,602	6,547	13,490	23,487	24,973
Liabilities—	£	£	£	£	£
Share Capital ...	36,876	107,252	235,960	385,488	449,783
Other liabilities ...	112,408	254,317	513,906	974,078	1,139,643
Balance of Surplus and Reserves ...	20,764	58,379	98,295	302,954	429,131
Total ...	170,048	419,948	848,161	1,662,520	2,018,557
Assets—					
Land, Buildings, Plant, etc. ...	92,860	245,135	549,974	872,623	1,045,387
Stock ...	15,181	63,142	75,742	299,404	377,570
Other Assets ...	62,007	111,671	222,445	490,493	595,600
Total ...	170,048	419,948	848,161	1,662,520	2,018,557

Investment Societies.

There are four investment societies. Two were formed during 1923 amongst employees of the Australian Gas Light Company and one in 1926 by employees of the City of Newcastle Gas and Coke Works. The object of these societies is to purchase shares in the respective companies by means of periodical subscriptions from the members. These shares are transferred to the names of individual shareholders when the

contributions to their credit amount to the market value of the shares. At the middle of 1929 the amount of members' share capital was £34,848 and shares to the value of £34,233 were held in public companies.

The fourth society was registered in 1929 for the purpose of investments in shares of public companies which are listed on the Stock Exchange.

Permanent Building Societies.

The aggregate liabilities and assets of permanent building societies in the last five years are shown in the following statement:—

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Number of Societies ...	7	7	7	7	7
Liabilities—	£	£	£	£	£
Deposits ...	550,116	540,658	567,111	588,366	616,457
Share Capital ...	401,277	417,652	455,310	473,680	492,677
Reserves and net profits ...	269,571	280,193	313,769	320,188	327,151
Other Liabilities ...	19,069	40,002	19,943	25,259	30,294
Total ...	1,240,033	1,278,505	1,356,133	1,407,493	1,466,579
Assets—					
Advances ...	1,080,494	1,114,144	1,156,368	1,203,928	1,254,172
Other Assets ...	159,539	164,361	199,765	203,565	212,407
Total ...	1,240,033	1,278,505	1,356,133	1,407,493	1,466,579

The income during the year 1928-29 amounted to £126,120, of which the largest item was interest, £108,863; and the expenditure, which amounted to £118,632, included £84,855 paid as dividend on shares and interest on deposits and as bonuses. Management expenses and taxes amounted to £33,777.

Starr-Bowkett and other Terminating Building Societies.

Starr-Bowkett building societies are terminating societies, in which the rights of members to appropriation are determined by ballot or by sale. The usual procedure is that the member pays a subscription of 6d. per share per week for 15 years, or in some cases until the last appropriation is made, and is entitled to a loan of £50 in respect of each share held by him. Loans are repayable by instalments spread over 10 to 12½ years without interest. The duration of societies varies, but frequently over 20 years elapse before the last loan is made. When an advance has been made to all members remaining in the society the process of winding-up commences and share capital is repaid as repayments in respect of loans accumulate. The life-time of a society of this type often extends to about 28 years. Particulars relating to their operations during the last five years are shown below:—

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Number of Societies ...	169	154	156	148	154
Number of Returns ...	126	132	133	133	137
Liabilities—	£	£	£	£	£
Members' Subscriptions ...	2,125,379	2,294,421	2,449,876	2,496,272	2,475,702
Other Liabilities ...	26,974	26,892	42,968	47,778	88,240
Balance of Profit ...	268,617	304,885	305,964	334,520	318,262
Total ...	2,420,970	2,626,198	2,798,808	2,878,570	2,882,204
Assets—					
Advances ...	2,027,175	2,185,125	2,355,978	2,428,385	2,448,313
Other Assets ...	393,795	441,073	442,830	450,185	433,891
Total ...	2,420,970	2,626,198	2,798,808	2,878,570	2,882,204

The subscriptions received from shareholders in 1928-29 amounted to £228,948, and the withdrawals to £168,794; the advances on mortgage amounted to £498,185, and repayments to £441,366, and the sum due on account of advances at the end of the year was £2,448,313. The income during the year amounted to £70,916, and the expenses to £39,376.

Besides the Starr-Bowkett building societies there is another class of terminating building societies which work principally on a bank overdraft, and loans are made available to members practically as soon as they require them, the ballot being very rarely resorted to. A member receiving a loan does not repay the actual amount borrowed, but is required to pay an increased rate of contribution for the remainder of the life of the society, consequently a balance-sheet in the usual sense of the term cannot be prepared. Although a maximum period of twelve years is fixed as the life of the society, it is usual to wind up before the expiration of the theoretical time.

There are ten such societies in existence, of which two were in liquidation at 30th June, 1929. The following statement shows particulars of the transactions of these societies, of which eight furnished returns for 1928-29:—

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Receipts—					
Subscriptions from Members ...	£ 31,182	59,165	63,336	65,202	64,213
Fines and other Charges ...	£ 1,281	1,835	1,584	1,582	1,621
Interest received from borrowers ...	£ 2,080	2,382	3,845	3,570	3,378
Expenditure—					
Advances to members ...	£ 47,945	81,943	48,713	52,361	33,080
Withdrawals of share capital ...	£ 4,126	1,619	5,109	15,822	7,727
Interest paid by society ...	£ 6,029	6,874	7,412	6,885	6,842
Management Expenses ...	£ 1,328	2,149	1,916	1,793	2,042
Number of shares at end of year ... No.	8,761	14,109	17,190	14,339	12,170

FRIENDLY SOCIETIES.

The affairs of the friendly societies in New South Wales are conducted in accordance with the Friendly Societies Act of 1912 and its amendments. The societies are compelled to register, and are required to furnish periodical returns to the Registrar, giving details relating to membership, sickness, mortality, benefits, and finances. In this chapter finances only are discussed, and the figures in the following tables relate to the societies which provide benefits such as medical attendance, sick pay, and funeral donations, and are exclusive of the particulars of miscellaneous societies registered under the Friendly Societies Act, such as dispensaries, medical institutes, and accident societies. Other matters relating to friendly societies are discussed in the chapter entitled "Social Condition."

Early legislation did not make adequate provision for maintaining the solvency of the friendly societies, but in 1899 an Act was passed to bring their affairs under State supervision and to make provision for the actuarial certification of tables of contributions, for valuations at least once within five years, the investigation of accounts, and other measures for safeguarding the funds.

As a general rule, the moneys received or paid on account of a particular benefit must be kept in a separate account and be used only for the specific purpose. It is provided, however, that where the sickness and funeral funds of a society are administered by one central body for the whole society they may be treated as one fund, and on valuation being made the Register may authorise surplus moneys belonging to a fund to be used in any manner for the purposes of any other fund.

Actuarial Valuations.

In the quinquennial valuations between 1904 and 1919 all the societies were valued as at the same date, and particulars of the results were published in earlier issues of this Year Book. Under more recent arrangements the societies are to be valued in groups in successive years.

Nine affiliated and fifteen single societies were valued as at 31st December, 1922, two affiliated societies as at 31st December, 1923, and the remainder as at 31st December, 1924. Of fifteen affiliated societies, nine showed surpluses of assets amounting to £92,018 and six societies showed deficiencies amounting in the aggregate to £67,941. The total liabilities amounted to £6,967,303, as compared with accumulated funds, £2,506,138, and future contributions valued at £4,485,242. In the case of fifteen single societies the assets, £66,189 (including funds £38,581), exceeded the liabilities by £11,615. Four of these societies, with accumulated funds amounting to £4,307, showed deficiencies amounting to £580 in respect of liabilities valued at £9,241.

The next valuation is being made as at 30th June and is being divided over the four years 1926 to 1929. Five affiliated and fourteen single societies were valued as at 30th June, 1926. Three affiliated societies showed surpluses of assets amounting to £17,079 and two showed deficits amounting to £37,172. The aggregate liabilities of the five societies amounted to £943,662 and the assets to £923,569, viz., accumulated funds £313,488, future contributions £610,081.

Of the single societies valued at 30th June, 1926, twelve showed a surplus of assets amounting to £16,435; their aggregate liabilities were £59,078 and assets £75,513 included accumulated funds £53,087. The assets of two single societies showing deficits amounted to £2,376, viz., funds £1,176 and future contributions £1,200, as compared with liabilities £2,568.

Four affiliated societies were valued as at 30th June, 1927, viz., one with a deficit of £710, the assets being accumulated funds £17,662, and contributions £56,590; and three with assets amounting in the aggregate to £2,729,002, viz., funds £1,177,483, and future contributions £1,551,519, and liabilities £2,665,214.

Three affiliated societies were valued as at 30th June, 1928, viz., one with assets amounting to £457,804 including funds £194,019; and liabilities amounting to £433,020, the surplus being £24,784. The other two societies showed deficits, viz., £211 and £60,559 respectively—the sum of the liabilities being £1,742,956 and of the assets £1,682,186, viz., funds £556,024 and future contributions £1,126,162.

Accumulated Funds.

The following statement illustrates the growth of the funds of the Friendly Societies since 1911:—

At 30th June.	Sickness and Funeral Funds.	Medical and Management Fund.	Other Funds.	All Funds.	
				Total.	Per Member.
	£	£	£	£	£
1911*	1,378,722	78,264	49,852	1,506,838	9·14
1916*	1,820,708	101,092	48,471	1,970,271	11·02
1921	2,134,339	194,358	83,065	2,411,762	12·08
1926	2,866,486	237,296	111,688	3,215,470	13·70
1927	3,055,187	249,305	114,307	3,418,799	14·33
1928	3,214,550	260,176	116,392	3,591,118	14·83
1929	3,376,326	272,536	115,370	3,764,232	15·19

*At 31st December.

During the twelve months ended 30th June, 1929, the total funds of the societies increased by £173,114, the increases being common to all the societies.

Receipts and Expenditure.

The receipts and expenditure of the friendly societies during the last five years are shown in the following statement:—

Year. ended 30th June.	Receipts.				Expenditure.					
	Contri- butions.	Interest.	Other.	Total.	Sick Pay.	Funeral Dona- tions.	Medical Atten- dance and Medicine.	Expenses of Manage- ment.	Other.	Total.
	£	£	£	£	£	£	£	£	£	£
1925	732,194	160,801	52,573	945,568	249,915	63,302	288,456	145,634	27,775	775,082
1926	766,772	172,039	61,850	1,000,661	269,768	65,913	307,330	148,808	35,376	827,245
1927	795,542	191,753	88,467	1,070,762	282,216	69,136	319,825	154,115	42,141	867,433
1928	808,887	205,222	60,836	1,074,945	307,321	75,460	329,816	156,444	33,585	902,626
1929	832,187	219,788	66,173	1,118,148	319,787	77,928	343,881	161,300	42,638	945,034

The total amount disbursed in benefits in the year ended June, 1929, was £741,096, as compared with £330,000 in 1911 and £601,673 in 1924-25. The cost of medical attendance and medicine has increased, as additional charges were made by medical practitioners and pharmacists, and the average cost per adult member rose from 18s. 3d. in 1911 to 27s. 11d. in 1923-24, and to 30s. 10d. in 1928-29.

In the year 1928-29 the total expenses, £161,300, were equal to 13s. 2d. per head of mean membership as compared with 7s. 6d. per head in 1911, and 13s. 10d. in 1920-21. In proportion to contributions and to total income, expenses in 1928-29 represented 19.4 per cent. and 14.5 per cent. respectively, as compared with 14.4 per cent. and 11.5 per cent. in 1911.

INSURANCE.

Insurance in New South Wales, apart from Government pension funds, is mainly the province of private organisations. The question of national insurance was investigated by a Royal Commission appointed by the Government of the Commonwealth in September, 1923, the final report being issued in March, 1927. The Commission recommended the creation of a national insurance fund to provide sickness, invalidity, maternity, and superannuation benefits. In September, 1928, a National Insurance Bill was introduced into the Federal Parliament, but it was not taken beyond the early stages in view of an impending dissolution of Parliament.

Legislation.

In New South Wales there is no legislation dealing specifically with the conduct of insurance business, the insurance companies being subject to the Companies Acts. The Life, Fire and Marine Insurance Acts of 1902 and 1917 were enacted in the State Parliament to provide for the protection of life insurance policies and annuities against creditors, and for the issue of special policies in substitution for those lost or destroyed. The section of the 1902 Act relating to marine insurance was superseded by the

Commonwealth Marine Insurance Act of 1909, which defines the limit of marine insurance and regulates the terms of the contracts, the liability of the insurers, etc.

A Commonwealth Act passed in 1905 limits the amount of assurance payable on the death of children. The maximum amount ranges from £5 in respect of children under 1 year to £45 in the case of children between the ages of 9 and 10 years, the sums being payable only to parents or their personal representatives. The provisions of the Act do not apply, however, to any insurance effected by persons having an insurable interest in the lives insured or to insurances, *e.g.*, industrial assurances, effected by parents, in which the amount payable on the death of a child does not exceed the total amount of premiums actually paid, plus interest up to 4 per cent. per annum.

A bill for the purpose of regulating the conduct of life assurance business in Australia was introduced in the Federal Parliament in August, 1929, and again after a change of Government in March, 1930.

LIFE ASSURANCE.

The volume of life assurance business transacted in New South Wales has increased very rapidly in recent years both absolutely and in proportion to the population. At the same time there has been a marked tendency for the local business of non-Australian assurance companies to diminish, and, especially since the war, the number of local assurance institutions has increased.

Particulars relating to life assurance are obtained from the reports published by the companies and from official returns collected under the Census Act of 1901.

Life assurance business in New South Wales is conducted generally on the principle of premiums which remain constant throughout the term for which they are payable. The rates quoted by the companies transacting new business in the State vary considerably, being affected by the conditions relating to bonuses and the age of the institutions.

New South Wales Business—Ordinary Branch.

The following tables relate only to assurances effected in New South Wales, and the extent of the business in force in the ordinary branch, exclusive of annuities, during the years 1927-28 and 1928-29 is shown below.

The business may be classified broadly in three categories—(1), whole-life assurance payable at death only; (2), endowment assurance payable at the end of a specified period or at death prior to the expiration of the period; (3), pure endowment payable only in case of survival for a specified period.

Classification.	1927-28.				1928-29.			
	Policies in Force.	Amount Assured exclusive of Bonuses and Re-assurances.	Bonus Additions.	Annual Premiums Payable.	Policies in Force.	Amount Assured exclusive of Bonuses and Re-assurances.	Bonus Additions.	Annual Premiums Payable.
	No.	£	£	£	No.	£	£	£
Assurance...	103,105	56,600,881	10,099,952	1,693,949	110,550	60,880,261	11,206,158	1,795,524
Endowment Assurance	147,504	30,544,717	4,187,400	1,185,613	155,052	32,488,146	4,485,203	1,292,941
Pure Endowment.	17,184	2,757,420	60,877	105,938	17,814	2,999,791	58,918	111,138
Total...	270,793	90,203,018	14,348,229	2,985,500	283,416	96,368,198	15,750,279	3,199,603

The majority of the policies, viz., 55 per cent., represented endowment assurances; whole-life policies were 39 per cent., and endowments 6 per cent. of the total number. The amount assured under the whole-life policies represented 63 per cent. of the total (exclusive of bonus additions), the average per policy being £551, endowment assurance policies, with an average of £210 per policy, covered 34 per cent. of the total amount assured; and endowment policies, with an average of £168 per policy, 3 per cent.

Industrial Assurance.

A large business in industrial assurance has developed in New South Wales during recent years. The policies in this class are for small amounts, and the premiums in most cases are payable weekly or monthly. Industrial business in the State is transacted by the Australasian companies only.

A classification of the industrial business in force in New South Wales is shown below:—

Classification.	1927-28.				1928-29.			
	Policies in Force.	Amount Assured exclusive of Bonus Additions.	Bonus Additions. *	Annual Premiums Payable.	Policies in Force.	Amount Assured exclusive of Bonus Additions.	Bonus Additions. *	Annual Premiums Payable.
	No.	£	£	£	No.	£	£	£
Assurance	78,649	2,379,270	47,222	122,804	80,401	2,440,483	51,110	123,745
Endowment Assurance	451,979	20,044,081	473,470	1,239,881	486,169	22,200,776	589,852	1,376,037
Pure Endowment	31,701	1,306,234	150	85,720	37,705	1,545,657	108	105,182
Total	562,329	23,729,585	520,842	1,448,405	604,275	26,186,916	641,070	1,604,964

* Partly estimated.

Annuities.

Transactions in annuities are not numerous, the business in force in New South Wales in 1928-29 being 537 policies for an aggregate amount of £44,285 per annum in the ordinary branch, and three policies representing £217 per annum in the industrial department. The amount of premiums payable annually on these policies was £4,335.

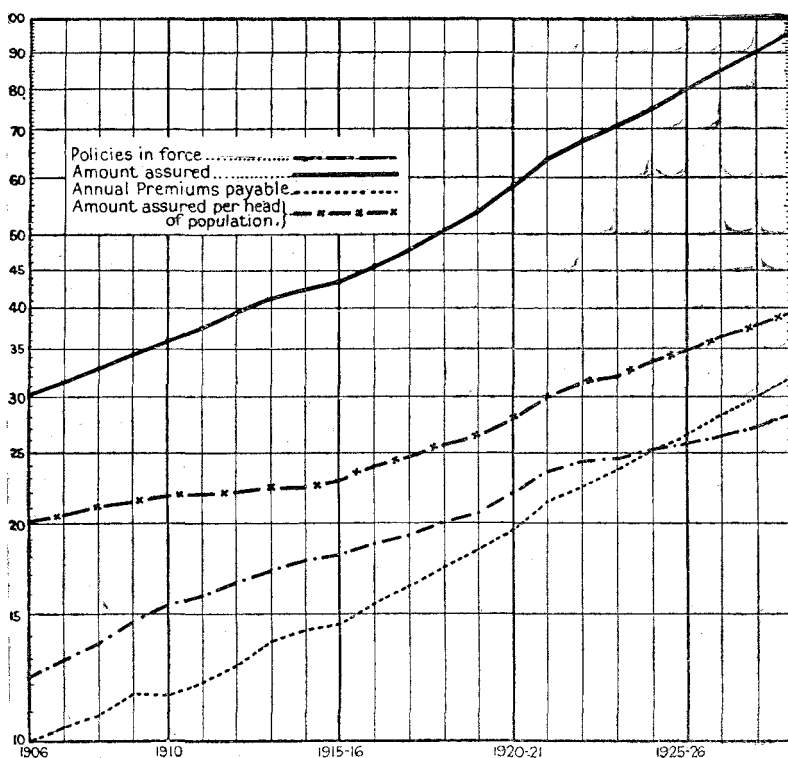
New Business.

The new life assurance business, ordinary and industrial, effected in New South Wales during the last five years, is compared in the following table:—

Year.	Ordinary Branch.			Industrial Branch.		
	Number of Policies.	Amount Assured.	Annual Premiums Payable.	Number of Policies.	Amount Assured.	Annual Premiums Payable.
		£	£		£	£
1924-25	28,318	10,677,767	370,667	111,211	5,549,595	353,937
1925-26	25,147	9,958,776	340,001	106,633	5,247,712	329,684
1926-27	26,360	10,643,262	368,417	107,844	5,608,112	338,090
1927-28	26,743	11,331,420	395,129	119,469	6,284,517	381,050
1928-29	33,298	12,984,604	453,724	131,498	6,987,127	417,364

The amount assured under new policies rose in each year of the quinquennium except 1925-26. In the industrial branch business had been expanding more rapidly than in the ordinary branch, but in 1928-29 the increase in the amount assured in the ordinary branch was 15 per cent. and in the industrial branch 11 per cent.

LIFE ASSURANCE—ORDINARY BUSINESS, 1906 to 1929.
(Ratio Graph.)



The numbers at the side of the graph represent 10,000 policies, £1,000,000 of Assurances, £100,000 of Premiums, and £1 of Assurances per head of population.

The diagram is a ratio graph. The vertical scale is logarithmic, and each curve rises and falls according to the rate of increase or decrease. In this it differs from the natural scale graph, in which the curves rise and fall according to the actual increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

A comparative statement of the amount of ordinary and industrial business, excluding bonuses and annuities, in force in New South Wales during each of the last five years is shown below:—

Year.	Ordinary Branch.			Industrial Branch.		
	Policies.	Amount Assured, excluding Bonus Additions.	Annual Premiums Payable.	Policies.	Amount Assured, excluding Bonus Additions.	Annual Premiums Payable.
	No.	£	£	No.	£	£
1924-25	252,966	75,951,505	2,523,522	457,876	17,327,951	1,076,382
1925-26	258,644	80,276,944	2,659,036	484,854	19,019,590	1,172,729
1926-27	264,432	84,973,960	2,812,902	524,600	21,431,152	1,309,107
1927-28	270,973	90,203,018	2,985,500	562,329	23,729,585	1,448,405
1928-29	283,416	96,368,918	3,199,603	604,275	26,186,916	1,604,964

The bonus additions effective in 1928-29 amounted to £15,750,279 in the ordinary branch, and those in the industrial branch were estimated at £641,070.

The amount assured in the ordinary branch increased by approximately £25,000,000, or by 35 per cent., in the five years ended 30th June, 1929, and in the industrial branch by £11,000,000 or by 73 per cent. The development of life assurance in relation to the population is shown in the following statement, which illustrates also the increase in the average amount per policy and in the premium payable.

Year.	Policies per 1,000 of Population.		Amount Assured per Head of Population.		Average Amount Assured Per Policy.		Average Annual Premium payable per Policy.	
	Ordinary.	Industrial.	Ordinary.	Industrial.	Ordinary.	Industrial.	Ordinary.	Industrial.
	No.	No.	£ s. d.	£ s. d.	£	£	£ s. d.	£ s. d.
1924-25	112	203	33 13 4	7 13 7	300	33	9 19 6	2 7 0
1925-26	113	211	34 18 7	8 5 7	310	43	10 5 8	2 8 5
1926-27	113	223	36 3 10	9 2 7	321	41	10 12 9	2 8 11
1927-28	113	234	37 11 5	9 17 8	333	42	11 0 4	2 11 6
1928-29	116	247	39 7 5	10 14 0	340	43	11 5 9	2 13 1

Ordinary insurance business is growing steadily at a rate somewhat more rapid than the growth of population and industrial business is growing at a much faster rate. There are two industrial and one ordinary policy for every nine inhabitants. In addition to the increase in number of policies there has been a substantial growth in the amount assured and the annual premium payable per policy.

Australasian Assurance Societies—Total Business.

The life assurances undertaken in New South Wales by foreign companies represent a very small proportion of their total business and an insignificant proportion of the business done in New South Wales.

A summary of the total business—ordinary and industrial—of the Australasian societies operating in New South Wales, and of the amount of receipts, expenditure, and accumulated funds, at intervals since 1895, is shown below.

Year.	Societies.	Policies in Force.	Receipts.	Expenditure.	Accumulated Funds, including Paid-up Capital and Reserves.	Interest and Rents.	
						Amount Received.	Average Rate Realised on Mean Funds.
	No.	No.	£ 000	£ 000	£ 000	£ 000	per cent.
1895-96	10	268,242	3,392	2,334	20,438*	1,037	5.21
1900-01	11	331,868	4,093	2,648	26,491*	1,162	4.51
1905-06	14	756,585	5,437	3,834	34,916	1,528	4.48
1910-11	11	1,056,173	7,131	4,619	45,668	1,963	4.46
1915-16	14	1,424,196	9,474	6,085	61,572	2,836	4.74
1920-21	14	1,944,845	14,079	7,944	83,029	4,116	5.16
1925-26	33	2,678,790	22,189	12,860	124,361	6,595	5.52
1926-27	31	2,819,352	23,525	13,788	134,163	7,290	5.64
1927-28	33	2,957,328	25,250	15,107	145,017	7,832	5.61
1928-29	31	3,094,838	27,755	16,270	156,724	8,424	5.58

* Exclusive of capital and reserve funds, etc.

The annual additions to the funds have shown a considerable increase since 1911, and there was gradual increase in earning power of funds from 1910-11, when 4.46 per cent. was realised, until a rate equal to 5.64 per cent. was reached in 1926-27. The rate in 1928 and 1929 was somewhat lower.

The following table shows details of the total receipts and disbursements of the Australasian institutions during 1928-29 for both classes of business:—

Particulars.	Ordinary Branch.	Industrial Branch.	Total.
	£	£	£
Receipts—			
Premiums—			
New	2,378,482	} 4,742,648	18,874,582
Renewal	11,753,452		
Consideration for Annuities... ..	105,885	...	105,885
Interest on Investments*	7,107,170	1,081,370	8,188,540
Rents	198,138	37,781	235,919
Other Receipts	326,935	23,381	350,316
Total Receipts	21,870,062	5,885,180	27,755,242
Expenditure—			
Claims and Policies matured	7,246,982	1,578,412	8,825,394
Surrenders	1,463,546	186,146	1,649,692
Annuities	133,681	253	133,934
Cash Bonuses and Dividends	663,807	86,970	750,777
Expenses, incl. commission, and brokerage	2,298,384	1,729,057	4,027,441
Taxes	308,296	43,028	351,324
Depreciation, Reserves, Transfers, etc. ...	447,256	84,140	531,396
Total Expenditure	12,561,952	3,708,096	16,269,958

* Includes rent in some cases.

The receipts of the societies consist mainly of premiums on policies and of interest arising from investments. The former represented 68 per cent. of the receipts in 1928-29 and the latter 29.5 per cent. Payments on account of death claims, policies matured and surrendered, and cash bonuses and dividends amounted in 1928-29 to £9,508,016, or 75.7 per cent. of the total expenditure in the ordinary branch, and £1,851,781, or 49.9 per cent., in the industrial branch. Expenses of management constituted 20.7 per cent. of the expenditure in the ordinary branch and 47.8 per cent. in the industrial.

Expenses of Management.

The ratio between management expenses and premium income must necessarily vary with the volume of new business transacted, and with the age of the society, quite apart from the competition for new business. The

following figures show in respect of the ordinary and industrial departments of the Australasian societies the cost of management, including commission and taxes, and its proportion to premium income and gross receipts.

Year.	Management Expenses.	Premium Income.	Gross Receipts.	Management Expenses.	
				Per cent. of—	
				Premium Income.	Gross Receipts.
	£	£	£		
1895-96	438,524	2,380,167	3,392,423	18·42	12·93
1900-01	565,380	2,799,512	4,093,376	20·19	13·81
1905-06	858,741	3,500,448	5,437,589	24·53	15·79
1910-11	1,016,153	5,074,204	7,131,250	20·03	14·25
1915-16	1,252,438	6,591,572	9,474,126	19·00	13·22
1920-21	2,222,218	9,870,814	14,079,302	22·51	15·73
1925-26	3,727,350	14,635,673	22,189,345	25·47	16·80
1926-27	3,881,716	15,825,049	23,525,386	24·53	16·50
1927-28	4,193,295	17,047,366	25,249,652	24·60	16·61
1928-29	4,378,765	18,874,582	27,755,242	23·20	15·78

The expenses of management of the ordinary business in 1928-29 represented in the aggregate 11·9 per cent. of the total receipts, and 18·4 per cent. of the premium income; and of the industrial branch, 30·1 and 37·4 per cent. respectively.

The expenses of the industrial branch are necessarily very high in proportion to the receipts, on account of the house-to-house method of collection, which is an essential feature of the system.

Particulars regarding the management expenses of the ordinary and industrial branches are stated separately in the following table for each of the past five years:—

Year.	Ordinary Branch.		Industrial Branch.	
	Proportion of Management Expenses to—			
	Premium Income.	Total Receipts.	Premium Income.	Total Receipts.
	per cent.	per cent.	per cent.	per cent.
1924-25	20·70	13·33	41·57	34·41
1925-26	20·78	12·89	39·94	32·76
1926-27	19·94	12·70	38·31	31·07
1927-28	19·71	12·59	38·72	31·32
1928-29	18·45	11·32	37·36	30·11

Liabilities and Assets.

The following table gives a summary of the total liabilities and assets of the Australasian societies in the year 1928-1929:—

Liabilities.		Assets.	
Assurance Funds—	£	Loans—	£
Participating in Profits ...	143,096,584	On Mortgage ...	35,897,089
Not participating in Profits ...	865,300	„ Municipal and Other	...
Claims Investment Fund ...	10,112	Local Rates ...	32,494,281
Other Assurance Funds ...	8,469,105	„ Reversionary, Life, and	...
		Other Interests ...	512,963
Total ...	152,441,101	„ Policies ...	18,896,776
Other Funds—		„ Personal Security ...	95,135
Guarantee and Contingency		„ Government Securities..	77,235
Funds ...	285,199	„ Other Debentures and	...
Investment Fluctuation		Bonds ...	1,353,361
Fund ...	758,129	Miscellaneous Loans ...	720,085
Paid-up Capital ...	2,683,845		
Reserve Funds ...	555,802	Total ...	90,046,925
Total Funds ...	156,724,076		
Other Liabilities—		Government Securities ...	46,821,074
Claims admitted but not		Other Securities and Shares ...	6,415,655
paid ...	1,547,110	Real Estate ...	7,399,776
Outstanding Accounts ...	267,908	Other Assets ...	9,093,601
Miscellaneous ...	1,237,937		
Total Liabilities ...	£159,777,031	Total Assets ...	£159,777,031

In some of the States companies are obliged by law to deposit certain sums with the Treasury as a guarantee of good faith, and these amounts are included in their balance-sheets under the head of Government securities or of deposits.

In former years insurance companies sought only such forms of investment as loans on mortgage, municipal securities, policies of members, etc., but in more recent years attention was given to Government securities and investments in shares, and large sums were subscribed to war loans. Considerable sums are deposited also with banks, or invested in freehold and leasehold property. Investments on personal security are unusual, and are generally combined with life policies, the total amount under this heading in the year 1928-29 being only £95,135.

The following comparison relating to liabilities and assets of Australasian life assurance institutions illustrates the rapid growth of the funds, etc., of the assurance societies:—

Year.	Liabilities.			Assets.		
	Paid-up Capital and Accumulated Funds.	Other Liabilities.	Total.	Loans on Mortgages, Policies, etc.	Securities, Freehold Property, etc.	Total.
	£	£	£	£	£	£
1895-96	21,497,059*	...	21,497,059	15,600,229	5,896,830	21,497,059
1900-01	27,471,223*	...	27,471,223	19,013,579	8,457,644	27,471,223
1905-06	34,915,842	951,520	35,867,362	22,072,061	13,795,301	35,867,362
1910-11	45,668,204	775,785	46,443,989	30,625,778	15,818,211	46,443,989
1915-16	61,572,309	1,619,028	63,191,337	45,535,992	17,655,345	63,191,337
1920-21	83,028,808	6,992,147	90,020,955	40,127,817	49,893,138	90,020,955
1925-26	124,361,308	4,576,073	128,937,381	62,387,027	66,550,354	128,937,381
1926-27	134,162,893	4,123,144	138,286,037	71,105,547	67,180,490	138,286,037
1927-28	145,016,722	4,856,137	149,872,859	79,411,504	70,461,355	149,872,859
1928-29	156,724,076	3,052,955	159,777,031	90,046,925	69,730,106	159,777,031

* Includes other liabilities.

The ratio of loans on the security of mortgages, local rates, policies, etc., to total assets, which was between 60 and 70 per cent. up to the year 1915-16, was reduced to 43 per cent. by 1921-22 and has risen since that year to 56 per cent. These changes were due mainly to large investments in war and other loans of the Commonwealth which represented only 17 per cent. in 1915-16, as compared with 44 per cent. in 1921-22 and 29 per cent. in 1928-29.

FIRE, MARINE, AND GENERAL INSURANCE.

The aggregate liabilities in New South Wales and elsewhere of the companies which were transacting fire, marine and general insurance in the State in 1926-27 amounted to £391,993,305, of which £39,916,461 represented shareholders' capital; reserve funds amounted to £43,314,316; reserve for unearned premiums, £58,276,916; insurance funds, £87,353,759; and other funds, £61,119,604; outstanding losses, £31,612,381; and other liabilities, £70,394,868. The assets consisted of the following items:—Mortgages and other loans, £14,834,667; Government securities, £134,861,756; municipal and other debentures, £50,235,106; and other securities, £89,309,004; land and house property, £25,931,393; agents' balances, £30,332,265; cash on deposit, current account, and in hand, £26,254,967; and other assets, £20,234,147.

The nature of the local insurances effected during the year 1928-29 is shown in the following table. The particulars relate to New South Wales risks only. Premiums exclude re-insurances and returns; and treaty arrangements are not taken into consideration. In the case of losses, amounts recovered from Australasian re-insuring offices are excluded also. Interest receipts cannot be distributed among the various classes of insurance and are included in one item:—

Nature of Insurance.	Premiums in New South Wales, less Re-insurances in Australia and New Zealand.	Expenditure in New South Wales.						
		Losses, less Re-insurances.	Expenses of Management.		Total.	Proportion of Premium Income.		
			Com-mission and Agents' Charges	Other.		Losses.	Com-mission and Agents' Charges	Other Management Expenses.
	£	£	£	£	£	percent.	percent.	percent.
Fire	2,390,917	1,614,519	409,807	662,316	2,686,642	67.53	17.14	27.70
Marine	484,413	250,196	37,262	124,773	412,231	51.65	7.69	25.76
Personal Accident	183,719	91,822	31,080	33,367	156,269	49.98	16.92	18.16
Employers' Liability and Workmen's Compensation ..	1,626,742	1,135,442	89,216	282,628	1,507,286	62.80	5.48	17.37
Public Risk, Third Party ..	46,448	13,031	7,083	9,872	29,986	28.06	15.25	21.25
Plate-glass	63,107	19,419	11,210	12,648	43,277	30.77	17.76	20.04
Motor Car and Motor Cycle ..	1,144,608	595,812	206,699	194,442	996,953	52.05	18.06	16.99
Hailstone	60,821	11,023	13,015	15,325	39,363	18.12	21.40	25.20
Boiler Explosion	11,971	2,947	1,069	1,719	5,735	24.62	8.93	14.36
Live Stock	16,348	8,674	2,817	4,680	16,171	53.06	17.23	28.63
Burglary	55,764	24,594	8,531	11,734	44,859	44.10	15.30	21.04
Guarantee	40,641	22,146	6,112	8,553	36,811	54.49	15.04	21.05
Loss of Profits	72,986	6,202	10,679	16,503	33,384	8.49	14.63	22.61
Elevator	2,780	1	453	672	1,126	0.04	16.29	24.17
Sprinkler	2,922	878	435	621	1,934	30.05	14.89	21.25
Pluvius	4,808	1,980	567	1,080	3,627	41.18	11.79	22.46
Householders' Comprehensive ..	17,416	4,191	2,051	3,802	10,014	24.06	11.78	21.82
Other	3,288	1,264	410	11,343	13,017	38.44	12.47	344.98
Total Premiums	6,229,699	..	..	..	..	..	..	..
Total Interest, etc.	329,369	..	..	..	..	..	..	..
Total	6,559,068	3,804,141	833,496	1,366,078	6,033,715	61.06	13.46	22.41

The total losses amounted to 61.1 per cent. of the premiums. The expenses for commission and agents' charges were £838,496, and for general management £1,396,078, making a total of £2,234,574, or 35.9 per cent. of the premium income and 34.1 per cent. of the gross revenue.

Preliminary figures for the year 1929-30 are as follows:—Premiums £5,984,007, other revenue £353,929, losses £3,281,281, and expenses of management £2,160,275.

The principal classes of insurance, according to the amount of net premiums are fire, employers' liability and workmen's compensation, motor vehicles, and marine.

In 1928-29 the premium income showed a net increase of £40,056. The premiums in respect of employers' liability and workmen's compensation showed a decrease of £123,033 which may be attributed mainly to a decline in the aggregate amount of wages paid in industry, motor vehicle insurance premiums increased by £94,185, personal accident by £27,264, hailstone by £19,117, fire insurance by £18,068.

A summary of the revenue and expenditure in respect of general insurance transactions in New South Wales in the period of five years ended June, 1929, is shown below:—

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Revenue—	£	£	£	£	£
Net Premiums	4,432,787	4,581,496	5,787,818	6,189,643	6,229,692
Interest, etc.	193,477	214,442	269,784	305,434	329,369
Total	4,631,264	4,795,938	6,057,602	6,495,077	6,559,068
Expenditure—					
Losses	2,185,560	2,439,149	3,700,918	3,601,889	3,804,141
Management—					
Commission and Agents' Charges	633,952	640,384	761,783	804,054	838,496
Other Expenses	999,397	1,069,053	1,260,090	1,370,591	1,396,078
Total	3,818,909	4,148,586	5,722,791	5,776,534	6,038,715
Excess of Revenue..	812,355	647,352	334,811	718,543	520,353
Proportion to Premium Income—	per cent.	per cent.	per cent.	per cent.	per cent.
Losses	49.30	53.24	63.94	58.19	61.06
Expenses—					
Commission, etc.	14.30	13.98	13.16	12.99	13.46
Other	22.55	23.33	21.77	22.14	22.41

During the five years shown above approximately 53 per cent. of the premiums have been repaid to insurers to cover losses. The fluctuations in the excess of revenue were due mainly to the amount of losses in fire insurance.

In proportion to premium income the losses and expenses vary greatly in the different classes of insurance. The following table shows a comparison under these heads for the past five years:—

Class.	Proportion per cent. of Losses to Premiums.					Proportion per cent. of Expenses to Premiums.				
	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Fire	43.3	56.4	72.9	56.3	67.5	40.0	42.3	42.0	43.8	44.8
Marine	46.4	40.1	45.4	42.7	51.6	30.2	30.6	30.4	33.1	33.4
Accident	39.5	39.2	46.3	49.7	50.0	45.6	44.3	41.8	46.0	35.1
Employers' Liability and Workmen's Compensation	60.7	64.4	68.9	67.9	69.8	28.5	26.6	25.0	20.6	22.8
Public Risk, Third Party	37.6	33.1	31.2	34.3	28.1	33.7	38.3	33.4	37.2	26.5
Plate Glass	33.2	28.9	34.2	33.2	30.8	39.7	38.7	38.3	38.5	37.8
Motor Car and Motor Cycle	62.7	55.6	57.0	59.0	52.0	34.5	34.6	33.6	36.3	35.1
Hailstone	79.3	27.3	39.9	39.7	18.1	45.2	53.0	39.4	47.2	46.6
Boiler Explosion	33.1	40.0	29.6	27.9	24.6	82.7	69.7	43.2	32.0	23.3
Live Stock	55.1	44.6	58.4	104.2	53.1	42.2	43.2	44.2	47.4	45.9
Burglary	44.4	42.0	33.0	39.8	44.1	37.6	35.2	35.9	39.5	36.3
Guarantee	22.7	34.0	34.2	44.4	54.5	34.3	35.7	34.1	37.1	36.1
Loss of Profits	21.4	20.9	53.2	66.7	8.5	30.3	32.9	35.6	37.6	37.2
Elevator	1.1	...	0.2	...	...	35.5	36.9	38.2	38.7	40.5
Sprinkler	14.3	17.0	5.6	51.1	30.1	21.3	18.6	31.4	36.2	36.1
Other	24.2	23.6	72.6	47.1	29.1	175.1	99.2	105.5	128.2	35.8
Total	49.3	53.2	63.9	59.2	61.1	36.9	37.3	34.9	35.1	35.9

In some cases the losses and expenses of management combined exceed the amount of premium income. This does not necessarily mean an aggregate loss on the class of business concerned, because societies have other sources of income, such as interest, which it is not possible to allocate to respective classes of insurance.

Many policies are for a period of twelve months, and the majority of the insurance companies set aside annually a reserve for unexpired risks. In the case of fire insurance the amount so set aside is usually 40 per cent. of the net premium income of the year. By reviewing the figures to calculate a reserve on that basis, it is found that fire business in New South Wales showed a substantial underwriting surplus in 1924-25, and a small surplus in the following year. In the last three years, however, there were deficits to be made good by interest earnings, etc., the amounts being large in 1926-27 and in 1928-29.

The total amount of the fire insurance written in New South Wales was £520,473,844 in 1925, £525,252,189 in 1926, £556,098,507 in 1927, £620,259,548 in 1928 and £626,946,940 in 1929. The measures taken for the prevention of fire are described in the chapter "Local Government."

Insurance relating to the liability of employers has grown rapidly as wages have risen, and as the scope of workers' compensation has been extended by legislation. The Workers Compensation Act which commenced on 1st July, 1926, increased the amount of compensation payable, extended the benefits to a large body of workers previously excluded, and placed upon employers the obligation of insuring against liability in respect of practically all classes of employees. The premiums amounted to £1,749,775 in 1927-28, and to £1,626,742 in 1928-29.

The insurance of motor cars also has developed rapidly, its growth being due to the increased use of these vehicles. The premiums received in 1922-23, viz., £253,231, were more than four times the amount in 1918-19.

There was a further rapid increase to £776,882 in 1925-26, then the rate of increase slackened, the amount in 1928-29 being 9 per cent. greater than in 1927-28. The premiums for personal accident insurance are increasing steadily.

For marine insurance the premium receipts, which amounted to £552,202 in 1925-26, have declined since to £484,413.

Government Insurance Office.

The Government Insurance Office of New South Wales transacts workers' compensation insurance for employers generally, as well as fire and other classes of insurance (except life assurance) for Government departments and statutory bodies and their employees. The establishment of the office was an outcome of the extension of workers' compensation benefits under the Act of 1926. An internal insurance fund was created in the Treasury in 1911 for the insurance of Government buildings against fire risks, the funds being administered by the Treasury Insurance Board. From time to time its operations were extended to provide other classes of insurance for Government and public bodies. With the commencement of the Workers Compensation Act of 1926, the Government decided to establish the Government Insurance Office to take over the business of the Treasury Insurance Board and to provide workers' compensation insurance in respect of private as well as public employment in order that the employers would be enabled to fulfil at the lowest cost their obligations to insure their employees as prescribed by the Act. The scope of the activities of the Government Office is defined by the Government Insurance (Enabling and Validating) Act, 1927, deemed to have commenced on 30th June, 1926.

Particulars of the business transacted by the Government Insurance Office during the year 1928-29 are shown below:—

Particulars.	Workers' Compensation.	Fire and Marine.	Motor Vehicles.	Other.	Total.
	£	£	£	£	£
Premiums <i>less</i> Reinsurances, &c. ...	281,806	48,675	18,688	5,466	354,635
Interest, &c.	18,353	23,833	1,672	2,690	46,548
Total Revenue ...	£ 300,159	72,508	20,360	8,156	401,183
Claims <i>less</i> Reinsurances, &c. ...	214,638	12,041	10,318	1,244	238,241
Expenses	38,402	17,194	3,692	1,076	60,364
Surplus	47,119	43,273	6,350	5,836	102,578
Total Expenditure ...	£ 300,159	72,508	20,360	8,156	401,183

BANKRUPTCY.

The Bankruptcy Act, 1924-28, of the Commonwealth superseded the bankruptcy laws of the States as from 1st August, 1928. Under the Federal law sequestration orders may be made by the Bankruptcy Court on a bankruptcy petition presented either by a debtor or by a creditor. The Court may refuse to make an order on a debtor's petition if his unsecured liabilities are under £50, and creditors may not petition unless the indebtedness amounts to £50. Upon sequestration the property of the bankrupt vests

in an official receiver for division amongst the creditors. Provision is made also for compositions and assignments without sequestration and for deeds of arrangement.

Statistics relating to the sequestration and assignment of estates of persons who are unable to pay their debts afford some indication of the fluctuations in the business conditions of the community. At the present time, however, it is not practicable to make comparisons between the transactions in former years under the State law and those recorded since the commencement of the federal system owing to the material alterations made in regard to legal proceedings between debtors and creditors. Moreover the federal records will not provide an entirely satisfactory basis for conclusions until the people have become familiar with these changes.

The following statement shows particulars of the transactions in New South Wales under the Bankruptcy Act of the Commonwealth since 1st August, 1928. The records are inclusive of cases in the Federal Capital Territory which for the purposes of the Act is included in the Bankruptcy district of New South Wales:—

Particulars.	Year ended 31st July, 1929.	Year ended 31st July, 1930. †
	No.	No.
Petitions Filed	578	703
Sequestration Orders—		
On Petition of Debtors	283	320
„ Creditors	163	226
Orders for Administration, Deceased Debtors' Estates—		
On Petition of Legal Representatives	4	6
„ Creditors	2	6
Petitions Withdrawn or Dismissed	90	127
Sequestration Orders—		
Number	446	546
Liabilities as estimated by Debtors	£ 570,215	832,752
Assets „ „	£ 266,550	532,523
Compositions and Assignments without Sequestration—		
Number	33	33
Liabilities as estimated by Debtors	£ 84,618	*33,195
Assets „ „	£ 73,878	*29,711
Deeds of Arrangement—		
Number	218	466
Liabilities as estimated by Debtors	£ 479,826	1,035,407
Assets „ „	£ 491,852	1,044,233

* Not complete.

† Preliminary figures.

At any time after he has been publicly examined, or at such times as are prescribed, a bankrupt may apply for an order of discharge releasing him from his debts, and he must apply when the Court orders him to do so. The court may either grant or refuse an absolute order of discharge, or may suspend its operation for a specified time or may grant an order subject to conditions with respect to future income or property acquired subsequently. During the year ended 31st July, 1929, fifteen applications were made for orders of discharge, four orders were granted—one unconditionally and three were subject to suspension for periods under two years—and eleven cases were pending at the end of the year.

TRANSACTIONS IN REAL ESTATE.

The procedure in regard to land transfers is regulated under the Real Property Act, 1900 and its amendments. The title under this Act first conferred under the Real Property Act, 1862, is known as "Torrens" title. The main features of the system are transfer of real property by registration of title instead of by deeds, absolute indefeasibility of the title when registered, and protection afforded to owners against possessory claims, as the title under the Act stands good notwithstanding any length of adverse possession. Lands may be placed under the Real Property Act only when the titles are unexceptional. All lands alienated by the Crown since the commencement of the Act are subject to the provisions of the Real Property Act, but transactions in respect of earlier grants are governed by the Registration of Deeds Act unless the land has been brought under the operation of the Real Property Act.

The area of Crown grants registered under the Real Property Act and the total consideration expressed in the grants in each of the past five years are shown below, also the area and value of private lands brought under the Act:—

Year.	Area.			Value.		
	Crown Lands.	Private Lands.	Total.	Crown Lands.	Private Lands.	Total.
	acres.	acres.	acres.	£	£	£
1925	683,652	38,562	722,214	622,897	1,973,257	2,596,154
1926	747,949	27,766	775,715	659,530	2,664,898	3,324,428
1927	794,400	34,203	828,603	625,071	2,431,050	3,056,121
1928	572,247	47,755	620,002	532,980	2,972,948	3,505,928
1929	549,746	38,986	588,732	436,572	2,417,307	2,853,879

At the close of 1929 lands of a total area of 47,710,763 acres were registered under the Act, the declared value as at date of registration being £112,238,299. The great part of this land consists of Crown grants issued since 1863, but it includes also 2,807,035 acres of land originally under the Registration of Deeds Act, but now under the Real Property Act.

The volume of transactions in respect of transfers and conveyances of private lands usually reflects the general condition of business throughout the State, but the published records, showing the amount of consideration paid on sales, do not indicate the actual volume of the transactions, as the figures are swollen in some years by reason of inflation of values or the prevalence of speculation, and the consideration shown is not always the real consideration.

The following table shows for each year of the past decade the amount paid as money consideration on sales of private lands, that is, of lands absolutely alienated with titles registered under the statutes shown. Transfers of conditional purchases and of leases from the Crown are excluded:—

Year.	Conveyances or Transfers.			Year.	Conveyances or Transfers.		
	Under Registration of Deeds Act.	Under Real Property (Torrens) Act	Total.		Under Registration of Deeds Act.	Under Real Property (Torrens) Act.	Total.
	£000	£000	£000		£000	£000	£000
1920	9,705	45,271	54,976	1925	8,874	39,311	48,185
1921	9,298	35,966	45,264	1926	9,851	48,915	58,766
1922	10,710	31,622	42,332	1927	8,857	47,844	56,701
1923	9,632	44,204	53,836	1928	9,364	47,462	56,826
1924	9,417	38,554	47,971	1929	9,500*	45,100*	54,600*

* Approximate—see context below.

The money consideration on sales in 1929 cannot be stated with accuracy because an apportionment has not been made of an amount exceeding £2,000,000 in respect of a transaction relating to real estate under both statutes, as well as other property. For the estimates shown in the table the sum of £2,000,000 has been divided between the two groups according to the ratio in the previous quinquennium, the total being overstated to the extent of the value of property, other than real estate, included in the transaction.

As already mentioned, the Real Property Act provides that on the issue of a certificate the title of the person named in the certificate is indefeasible. If a transfer has been made in error, the holder of a certificate cannot be dispossessed of the property concerned unless he has acted fraudulently, therefore provision has been made to enable the Government to compensate persons erroneously deprived of property. An assurance fund was created by means of a contribution of one halfpenny in the pound on the declared capital value of property when first brought under the Act and upon transmission of titles of estates of deceased persons. In 1907 the fund, amounting to £255,059, was amalgamated with the Closer Settlement Fund, to which subsequent contributions have been paid.

REGISTRATION OF MONEY-LENDERS.

Under the Money-lenders and Infants Loans Act, 1905, money-lenders must be registered at the Registrar-General's Office, and they must conduct their business only under their own or their firms' names, and at their registered offices. The term "money-lender" includes every person or company transacting the business of money-lending; but it excludes licensed pawn-brokers, registered friendly societies, institutions incorporated by special Act of Parliament to lend money, and banking and insurance companies. The number of registrations and renewals during the year 1929 was 183.

MORTGAGES OF REALTY AND PERSONALTY.

Mortgages, except those regulated by the Merchant Shipping Act, may be registered at the Registrar-General's Office, but there is a large number of unregistered mortgages of which records are not obtainable.

Mortgages of land are registered under the Registration of Deeds Act or the Real Property Act, according to the title of the property at the date of mortgage. The consideration given generally represents the principal owing, but in some cases it stands for the limit within which clients of banks and of other loan institutions are entitled to draw.

Liens on wool, mortgages on live stock, and liens on growing crops are registered under a special Act. Mortgages on live stock are current till discharge, and liens on wool mature at the end of each season, terminating without formal discharge. The duration of liens on agricultural and horticultural produce may not exceed one year. Such advances do not usually reach large sums, as there is an element of uncertainty in the security offered.

Mortgages on personalty other than ships and shipping appliances, wool, live stock, and growing crops are registered at the office of the Registrar-General in terms of the Transfer of Records Act, 1923, which was proclaimed on 18th October, 1925. Previously they had been filed at the Supreme Court. A bill of sale comprising household furniture actually in use by husband and wife living together is ineffective unless the consent of the wife or the husband of the maker or the giver of the bill is endorsed thereon. The law requires that each document must be filed within thirty days after it is made or given, otherwise the transaction is void as against execution

creditors and against the official assignee or the trustee of a bankrupt estate. The registration must be renewed every twelve months, and in order to prevent fraud and imposition the records are open to the inspection of the public. Information is not readily available to show the total amount of advances made annually on bills of sale.

Mortgages of registered British vessels are arranged under the Imperial Merchant Shipping Act of 1894.

Particulars of the mortgages of land, crops, wool, and live stock effected during each of the last five years, are shown below.

Year.	Mortgages of Land.		Mortgages on Crops, Wool, and Live Stock.			
	Number.	Consideration.	Number			Consideration.
			Crops.	Wool.	Live Stock.	
		£				£
1925	43,208	42,768,753	4,842	1,904	4,109	4,495,119
1926	48,078	52,980,451	6,153	2,455	4,190	4,901,483
1927	48,868	50,624,554	5,190	3,170	4,223	5,205,903
1928	50,005	47,728,870	10,259	3,614	4,614	6,266,633
1929	50,841	48,420,657	7,211	3,709	4,481	6,451,596

The amounts shown under the heading "Consideration" include only the cases in which a specific amount is stated in the deeds, whether the amount was actually advanced or not. Where the sum advanced is liable to fluctuation, it is usual to insert the words "valuable consideration" or "cash credit," etc., instead of a definite sum. In view of the number of mortgages in which the amount is omitted, it is probable that the totals are understated. Complete records of discharges and foreclosures are not available.

PRIVATE WEALTH.

Estimates of the wealth of New South Wales at intervals since 1891 were reviewed in detail in the 1921 issue of the Year Book, and the following statement supplies a summary of the estimates relating to private wealth at ten-year intervals since 1901 and in 1925.

Year.	Estimated Value.	
	Total.	Per Head.
	£	£
1901	368,568,000	270
1911	553,816,000	333
1921	947,930,000	420
1925	1,132,000,000	498

Estates of Deceased Persons.

Some information relating to the distribution of wealth may be gleaned from returns relating to the estates of deceased persons which are valued for the purpose of assessing death duties. In accordance with the provisions of the Stamp Duties Act the estates are deemed to include all the property

of the deceased persons which is situated in New South Wales, including property which, within three years prior to death, was transferred as a gift, or vested in a private company or trust in consideration of shares or other interest, and moneys payable under life assurance policies, etc.

The following table shows the number of estates and the value as assessed for probate duty during the ten years ended 30th June, 1929, including intestate and other estates administered by the Public Trustee:—

Year ended 30th June.	Estates.	Amount.	Year ended 30th June.	Estates.	Amount.
	No.	£		No.	£
1920	7,172	17,106,876	1925	6 410	17,970,385
1921	5,731	12,199,419	1926	6,909	18 390 924
1922	5,458	13,883,674	1927	7,064	18,138,133
1923	5,681	15,441,378	1928	7,749	21,819,953
1924	6,281	16,429,860	1929	7,494	24,548,457

A rough test of the diffusion of wealth may be made by relating the number of people who died possessed of property to the total number of deaths, as in the following statement. The figures in this and in the succeeding table are exclusive of estates administered by the Curator of Intestate Estates for the years prior to 1911, and the figures for 1919 and subsequent years indicate the relation between the number of deaths in the calendar year stated and the number of estates on which probate was granted in the twelve months ended six months later. The particulars showing estates in calendar years are not available since 1918, and probate is not granted usually until several months after the death of a testator:—

Period.	Proportion of Deceased Persons with Estates per 100 Deaths.	Period.	Proportion of Deceased Persons with Estates per 100 Deaths.
1880-84	11.0	1915-19	30.1
1885-89	11.6	1920-24	29.0
1890-94	13.2	1925	33.2
1895-99	14.9	1926	31.8
1900-04	17.0	1927	34.0
1905-09	19.1	1928	33.0
1910-14	22.9		

The figures indicate a wide diffusion of property, but the deaths include those of a large number of minors at ages when the proportion of property owners is small. The next table shows the proportion of estates per 100 deaths of adult males, and as a large number of women are possessors of property in their own right, the ratio of estates to the deaths of adults of both sexes.

Period.	Ratio of Estates per 100 Deaths of Adult Males.	Ratio of Estates per 100 Deaths of Adult Males and Females.	Period.	Ratio of Estates per 100 Deaths of Adult Males.	Ratio of Estates per 100 Deaths of Adult Males and Females.
1880-84	34.6	22.3	1915-19	71.3	42.1
1885-89	37.5	23.8	1920-24	68.1	39.3
1890-94	41.2	25.8	1925	75.1	43.7
1895-99	42.7	26.2	1926	72.9	41.7
1900-04	46.0	27.8	1927	76.6	44.1
1905-09	48.8	29.2	1928	76.2	43.1
1910-14	56.6	34.0			

The foregoing figures include the estates of persons who died abroad, but usually the number is not sufficient to cause an appreciable degree of error. The proportions during the war period, however, were increased considerably by reason of the inclusion of a large number of estates left by members of the naval and military forces, and the deaths which occurred abroad were not included in the number on which the ratios shown in the table are based. Making due allowance for the deaths of absentees, it is apparent that the proportion of property-owners in the State has increased.

An indication of the proportionate distribution of wealth may be gained from an analysis of the value of the estates of deceased persons, and in the following statement the estates on which probate was granted during the ten years ended 30th June, 1929, have been graded according to value:—

Value of Estate.	Number of Deceased Persons leaving Property.	Value of Estates of Deceased Persons.	Proportion in each Group.	
			Number.	Value.
		£	Per cent.	Per cent.
Under £1,000	40,276	14,181,192	61·07	8·96
£1,000 to £5,000	18,843	38,939,425	28·57	22·13
£5,000 to £12,500	4,157	31,940,840	6·31	18·15
£12,500 to £25,000	1,663	27,910,339	2·52	15·87
£25,000 to £50,000	641	22,289,386	·97	12·67
Over £50,000	369	40,667,877	·53	23·12
Total	65,949	175,929,059	100·00	100·00

The average value per estate during the period was £2,668, but of the property-owners who died 61 per cent. did not possess £1,000, the total value of their property being only 8·1 per cent. of the aggregate. On the other hand more than half the property devised was contained in 4 per cent. of the estates.

PRIVATE INCOMES.

Formerly the narrow scope of the State income-tax and latterly the inadequacy of statistical data relating to the incomes assessed for purposes of State income tax rendered it impossible to formulate estimates of the national income, and, for various reasons, the information published by the Commissioner of Federal Taxation could not be turned to account. However, satisfactory results were obtained for the year 1920-21 by using the returns of occupations and breadwinners obtained at the census of 3rd April, 1921, in conjunction with statistics relating to income derived during the year ended 30th June, 1921, obtained by the Commissioner of Taxation from returns supplied for purposes of Federal income tax. An estimate based on these data was set forth in detail in the 1924 issue of this Year Book.

A comparative statement of estimates of the incomes in various years from 1892 to 1926 is shown below:—

Year.	Net Income of Resident Individuals.	Undistributed Income of Local Companies, etc.	Income accruing to absentees.		Private Income derived in New South Wales.
			From Private Investments and Property.	From investment in Government Loans. †	
	£	£	£	£	£
1892	*	*	3,050,000	1,870,000	68,270,000
1898	57,649,000	2,250,000	2,530,000	1,975,000	64,404,000
1901	*	*	2,832,000	1,976,000	66,912,000
1914-15	102,100,000	*	*	3,100,000	114,100,000
1920-21	187,800,000	10,300,000	3,400,000	6,700,000	208,200,000
1925-26†	234,000,000	16,500,000	3,500,000	8,100,000	262,100,000

* Not available.

† Commonwealth and State.

‡ Preliminary totals.

The estimate of 1892 relates to a year in which the financial boom had reached its highest point and the income of that year consequently appears unduly inflated. In 1898 and 1901 the State was slowly recovering from an industrial depression consequent on the financial crisis of 1893 and a succession of adverse seasons. The income of the year 1914-15 was affected by the dislocation caused by the outbreak of war and by the occurrence of a very bad season.

The decrease in the amount of income derived in the years 1898 and 1901 as compared with 1892 may be readily understood. The subsequent increase has been occasioned by the depreciation in the purchasing power of money, and is in some measure nominal, though it is certain that the growing prosperity of the community has had a very favourable influence.

The following table shows the number of persons deriving income, their proportion to the total population of the State, and the average amount of income derived per inhabitant and per person deriving income:—

Year.	Resident Persons receiving Income.	Proportion of Persons receiving Income to Total Population.	Average amount of Income per person receiving Income. †	Average amount of Income per Inhabitant. †	Proportion of Total Income received by Absentees.
	No.	Per cent.	£	£	Per cent.
1892	446,190	37·4	139·8	53·8	7·2
1898	534,315	40·4	112·1	45·6	7·0
1901	*	*	*	45·4	7·2
1914-15‡	788,600	41·7	138·2	57·3	*
1920-21	902,400	42·9	219·5	94·8	4·9
1925-26§	995,200	42·9	251·7	109·0	4·4

* Not available.

† Excluding absentees and their income.

‡ The figures for 1914-15

relate to the incomes of persons resident in, and companies with head offices in, New South Wales.

§ Preliminary.

With the growth of population the number of persons receiving income has shown a very pronounced increase and its proportion to the total population has risen steadily. This is probably due, in part, to the increase in the employment of women in commercial and industrial occupations, but it is also a consequence, in part, of the increase in the proportion of adults in the population.

It is practically impossible with existing data to obtain a satisfactory measure of comparison between the real income of post-war and earlier years, because of the difficulty of properly assessing the effect of the inflation of prices, which reached a maximum in 1920.

The foregoing estimates represent, as nearly as may be, the sum of the net incomes derived by private individuals and by companies from sources within New South Wales. They are, therefore, in excess of the value of goods produced and remunerated services rendered, by reason of the duplication of amounts paid from the proceeds of taxation to old-age, invalid and war pensioners and to bondholders in war and other Government loans. On the other hand, appreciable amounts of income derived by the various Governments from State lands, forests and mines and from governmental business enterprises are excluded from account.

LOCAL GOVERNMENT.

GROWTH OF LOCAL GOVERNMENT.

THE first step towards Local Government in New South Wales may be said to have been taken in 1840, when the Parish Roads Act was passed, authorising proprietors of lands adjacent to or within 3 miles of parish roads to elect trustees, who were empowered to levy rates, establish tolls, and borrow money for making or repairing such roads and the bridges thereon. Particulars of the subsequent development will be found in the Year Book for 1922.

Local Government in New South Wales is conducted under the provisions of the Local Government Act of 1919 and its amendments, except in the City of Sydney, where it is regulated by the Sydney Corporation Acts. Slight modification has been made in the system by the Main Roads Act and other laws. The system extends over the whole of the Eastern and Central Land Divisions of the State, with the exception of the Federal Capital Territory. The Murrumbidgee Irrigation Area also was excluded until the year 1928. The sparsely-populated Western Division, embracing two-fifths of the area of the State, is unincorporated, with the exception of the portions included in the municipalities of Bourke, Brewarrina, Broken Hill, Cobar, Wentworth, and Wilcannia, and parts of the municipalities of Balranald and Hillston which lie within its boundaries.

Local governing areas are of two main kinds, viz., municipalities and shires. At the end of 1928 there were 181 municipalities, including the City of Sydney, and their aggregate area was 1,605,072 acres. The smallest municipality is Darlington, a suburb of Sydney, with 54 acres, and the largest is Central Illawarra, 83,654 acres. There were 138 shires, extending over an area of about 181,000 square miles. The smallest is Woy Woy, 48 square miles, which was separated from Erina Shire on 1st August, 1928. The largest is Lachlan, with headquarters at Condobolin, 5,883 square miles. Certain of the municipalities and shires have combined to form county councils, which are local governing bodies, constituted to administer specific services.

In this chapter the particulars relating to municipalities and shires are shown conjointly in a summarised form and separately in greater detail. In making a distinction between the metropolitan and country districts, the metropolitan district, unless otherwise specified, is the area defined by Schedule IV of the Local Government Act of 1919. It embraces the municipalities of Auburn, Bankstown, Dundas, Ermington and Rydalmere, Granville, Lidcombe, and Parramatta, and the shires of Hornsby, Sutherland, and Warringah, in addition to the area usually designated the metropolis, viz., the City of Sydney and forty-one suburban municipalities, including Ku-ring-gai, formerly a shire, which was proclaimed as a municipality as from 1st November, 1928.

Sydney Corporation Acts.

In terms of the Sydney Corporation Act of 1902, and its amendments, the local government of the City of Sydney is vested in the City Council, which is composed of fifteen aldermen, three for each of the five wards. The Lord Mayor is elected annually by the aldermen from their own number.

Elections are held every third year. In November, 1927, however, an Act was passed which placed the administration of the city in the hands of a temporary Commission until June, 1930, when a new council was elected for a term dating from 1st July, 1930, to 31st December, 1932.

The functions of the Council, exercised during its term of office by the Commission, include the maintenance of the streets and other public ways of the city, though the traffic is regulated by the police. Similarly the Council is empowered to levy general, special, and street watering rates; to establish public markets; to regulate street selling, the erection of hoardings, matters relating to public health and sanitation, and the inspection of food; to resume land for the purpose of remodelling or improving areas and for widening streets, etc.; to erect and let dwellings; to maintain free lending libraries; to control parks; and generally to make by-laws for the good government of the city.

The Council exercises authority to generate and supply electricity for public and private purposes; to elect two members of the Board which administers the metropolitan water supply and sewerage services, one being elected in every second year to hold office for a period of four years; and, at the triennial elections of members of the Board of Fire Commissioners of New South Wales, to vote at the election of one member to represent the City of Sydney and the councils of the suburban municipalities.

The right to be enrolled as a voter at elections of the City Council, extends to adult British subjects by reason of (a) the ownership or (b) the occupation of property. The qualification of ownership is held by persons who own a freehold interest in possession of property of a yearly value of £5 and upwards in any ward, or a leasehold interest in property of a yearly value of £25 and upwards. A person with this qualification may be placed on the roll for every ward in which he is so qualified, but may not then be enrolled in any ward by virtue of any other qualification. The qualification by reason of occupation is held by those who have occupied continuously for a period of six months a house, shop, or other building, or lodgings, of a yearly value of £10. Any such person may be placed on the roll for one ward only, and if he has more than one such qualification he may choose the roll on which his name shall be placed. Enrolment entitles the elector to one vote in each ward in which he is enrolled. Any person qualified to vote is eligible for election as an alderman unless disqualified under the provisions of the Sydney Corporation Act.

System of Local Government.

The Local Government Act of 1919 and its amendments, with ordinances thereunder, are administered by the Minister for Local Government, who is in charge of a State Department. Each municipality or shire is governed by a council, which is elected for a term of three years. A municipal council must consist of not less than six nor more than fifteen aldermen, and a shire council of not less than six nor more than nine councillors, each riding being represented by an equal number of councillors. Each municipal council elects a mayor annually from amongst its members, and each shire council a president. A council may pay to its members reasonable out-of-pocket expenses for travelling, and may pay an allowance to its mayor or president, but otherwise the services of aldermen and councillors are gratuitous.

Every adult natural-born or naturalised British subject of either sex is qualified to be enrolled as an elector, provided he or she is either a land-owner, a rate-paying lessee, or has been continuously for the three months

preceding the day prescribed for enrolment an occupier of ratable land of the yearly value of £5 or upwards, or of land by virtue of a miner's right or business license, or is in occupation of Crown land and pays rent. By the Local Government (Amendment) Act, 1927, the franchise was extended to all adult residents of a ward or riding who have been residing there continuously for a period of six months. Persons may be enrolled and may vote in respect of each ward or riding in which they are qualified as owners or as rate-paying lessees, but not more than once in respect of the same ward or riding. A person qualified as owner or as rate-paying lessee in a ward or riding who is qualified also as an occupier in another ward or riding of the same municipality or shire may not be enrolled under both qualifications. He may choose the ward or riding in which he desires to be enrolled, and failing due notice of his choice he is enrolled where he is qualified as owner or lessee. A person qualified as occupier in more than one ward or riding may be enrolled in one only.

Unless disqualified by the Act, every elector is qualified for a civic office. The powers of the councils are extensive; they were stated in detail in the 1922 issue of the Year Book at page 332.

A municipality may be proclaimed under the Local Government Act as a city if it is an independent centre of population with an average population of at least 20,000 people, and an average annual income of at least £20,000. Sydney, Armidale, Bathurst, Goulburn, Grafton, and Newcastle were proclaimed as cities under the Crown Lands Act in 1885, and Broken Hill was proclaimed under the Local Government Act in 1907.

In the shires, urban areas may be established upon proclamation by the Governor if the majority of the electors in the locality favour the project. In such cases the council of the shire exercises within each urban area the powers of the council of a municipality. Except in the shires of Hornsby, Sutherland, and Warringah, urban committees may be appointed to exercise within the urban areas certain powers of the council, and to expend money raised by a local rate levied by the council upon the request of the urban committee.

In some cases boards or trusts have been constituted under special Acts to conduct operations which are regarded usually as belonging to the sphere of local government. A brief description of their activities is given later.

Provision is made for joint action by local governing bodies in regard to undertakings of magnitude or those which benefit more than one area. For such purposes county councils may be constituted in terms of the Local Government Act, or joint committees may be arranged under the ordinances.

Any group of local areas or of parts thereof may be constituted by proclamation as a county district, in which a county council, consisting of delegates from the areas concerned, exercises such powers as may be delegated to it. Where powers relating to the destruction of aquatic pests have been delegated, the county council may be assisted by subsidies from Consolidated Revenue, if the funds be voted by Parliament. The subsidies are payable in six half-yearly instalments, viz., for the first and second half-years, £1 for every £1 of revenue collected for the destruction of aquatic pests; for the third and fourth half-years respectively, 15s.; for the fifth and sixth, 10s.

At the end of 1928 four county districts were in existence. The St. George county district embraces the municipalities of Baxley, Hurstville, Kogarah, and Rockdale. It was formed for the purpose of establishing an electric lighting service.

The Richmond River county district consists of the municipalities of Ballina, Casino, Coraki, and Lismore, and the shires of Byron, Copmanhurst (part only), Gundurimba, Kyogle, Terania, Tintenbar, Tomki, and Woodburn. It was established for the eradication of the water hyacinth pest.

The Clarence River county district was incorporated by the municipalities of Grafton, South Grafton, and Ulmarra, and the shires of Copmanhurst (part only), Nymboida, and Orara. It was constituted principally for the purpose of carrying out the Nymboida hydro-electric scheme.

The Southern Riverina county district was formed by the municipalities of Wagga and Corowa and the shires of Coreen and Culcairn to establish a quarry at Culcairn for the supply of metal for roadmaking.

Local Services within Irrigation Areas.

Until the year 1928 the local services in the irrigation areas were maintained by the Water Conservation and Irrigation Commission. In 1921 executive boards were appointed in the Murrumbidgee Irrigation Areas as advisory committees to assist the administration, though they had no statutory powers. In 1924 the Governor was empowered by the Irrigation Holdings (Freehold) Act to proclaim any irrigation area or portion thereof as a municipality or shire, or to add the whole or a portion of an irrigation area to an adjoining municipality or shire.

The Act authorised the Commission to levy rates* and to impose charges for local services pending the constitution of an area as a shire or municipality, and in connection with the rates and charges statutory provision was made for the constitution of executive boards of seven members, four elected by the occupiers of the holdings and three nominated by the Commission, to advise the Commission in respect of questions affecting an area. Boards were constituted in two areas in 1927, and in the following year the areas were proclaimed as shires.

Extent of Local Government.

Prior to 1906, when the shires were constituted, the extent of the local governing areas was only 2,830 square miles. At the end of 1928 the incorporated area was about 183,856 square miles, or nearly 60 per cent. of the total area of the State (309,432 square miles). The population in municipalities and shires as at 31st December, 1928, was 2,431,950, or 99 per cent. of the total population.

The area, population, and unimproved capital value of ratable property in the incorporated areas as at 31st December, 1928, are stated below:—

Local Areas.	Area.	Population.	Unimproved Capital Value.
Metropolitan Area—	acres.	No	£
City of Sydney	3,244	110,000	†61,162,239
Other Municipalities	151,037	1,115,100	99,723,112
Shires	234,160	45,740	8,698,801
Total, Metropolitan*	488,441	1,270,840	169,584,152
Country—			
Municipalities	1,450,791	517,900	37,774,835
Shires	115,778,560	643,210	149,852,370
Total, Country	117,229,351	1,161,110	187,627,205
Grand Total	117,667,792	2,431,950	357,211,357

* Schedule IV, Local Government Act, 1919.

† Excluding Federal Government properties, Harbour Trust and Railway properties and ratable mains.

The area of the country shires includes 28 square miles of Federal Territory at Jervis Bay, but excludes the Federal Capital Territory, containing an area of 912 square miles.

The improved capital value of ratable property in the City of Sydney, as at 31st December, 1928, was £190,991,120, and the assessed annual value £8,236,784. In the other municipalities included in the metropolitan area, as defined by Schedule IV of the Local Government Act, the improved capital value was £288,321,621 and the assessed annual value was £20,827,802. In the country municipalities the improved value was £115,824,199, and the annual value £9,136,595. Similar particulars are not available for the country shires.

The financial position of the municipalities and shires in 1928 was as follows:—

Local Areas.	Total Revenue.			Total Expenditure.	Total Liabilities.	Total Assets.
	Rates Levied.	Other.	Total.			
Metropolitan Area—	£	£	£	£	£	£
City of Sydney	1,033,634	3,030,219	4,063,853	4,099,618	39,720,206	31,359,686
Other Municipalities	2,309,161	905,648	3,214,809	3,977,498	5,945,550	3,282,717
Shires	163,710	154,162	317,872	380,248	775,718	514,002
Total, Metropolitan*	3,506,505	4,090,029	7,596,534	8,457,364	37,441,468	35,156,405
Country—						
Municipalities	1,181,835	1,629,297	2,811,132	2,775,201	6,138,632	8,008,485
Shires	1,337,676	1,533,824	2,921,500	2,931,281	1,793,481	2,016,228
Total, Country	2,590,511	3,163,121	5,732,632	5,706,482	7,933,113	10,024,713
Grand Total	6,076,616	7,253,150	13,329,166	14,163,846	45,374,581	45,181,118

* Schedule IV, Local Government Act, 1919.

The revenue shown under "Other" is mainly derived from business undertakings, such as lighting services, etc. Particulars of these and of the operations of individual councils are published annually in the Statistical Register of New South Wales. The revenue and expenditure shown above include the Main Roads and Harbour Bridge rates, which are collected by the councils for the Main Roads Board and the State Treasury respectively.

VALUATION OF PROPERTY IN LOCAL AREAS.

The revenue of local governing bodies is derived mainly from the taxation of land and improvements thereon, and as the rates of taxation are levied on the unimproved, improved, or annual value, it is necessary that periodic valuations be made of all ratable property. The valuations are made at intervals not exceeding three years, and prior to the enactment of the Valuation of Land Act in 1916 they were made by valuers appointed by the councils. This system had remained in operation for many years without any centralised control to secure uniformity, but the Act of 1916 made provision for the valuation of the lands of the State by the Valuer-General. The Act prescribed that rates and taxes based on land values must be levied on the values determined by the Valuer-General, and that the power of a council to assess values ceased when the Valuer-General delivered a valuation list. A council may, however, ask the Valuer-General to re-value any land which it considers has not been valued correctly, and pending action by the Valuer-General the valuations are made by the council's assessors as formerly. Valuations either by the Valuer-General or the councils' valuers are subject to review on appeal to the Land and Valuation Court, described in the chapter of this Year Book relating to Law Courts.

This system was modified by the Local Government Act, 1924, to provide that the council of a shire, other than the Blue Mountains Shire or any shire wholly or partly within the County of Cumberland, may decide whether the valuation should be made by the Valuer-General under the Valuation of Land Act, 1916, or by a valuer appointed by the council.

In municipalities the valuation must show the unimproved capital value, the improved capital value, and the assessed annual value of ratable property. In the shires the law requires the valuation of the unimproved capital value only, the determination of the improved capital value and of the assessed annual value being optional, except in urban areas, in which the assessed annual value must be determined. The Valuer-General usually determines such values for shires within his jurisdiction.

The unimproved capital value is defined, in both the Local Government Act and the Valuation of Land Act, as the amount for which the *fee-simple* estate in land could be sold under such reasonable conditions as a *bona-fide* seller would require, assuming that the actual improvements had not been made.

The Valuer-General's valuations cover all land except Commonwealth properties, reserves, parks, etc., and unoccupied Crown lands, and the values are on a freehold basis. For purposes of rating, however, the unimproved capital value of Crown lands occupied as pastoral or agricultural holdings is twenty times the rent payable to the Crown during the year preceding the assessment. After the expiry of ten years of the term of leases, lands leased from the Crown with right of conversion to freehold are rated on thirty times the annual rental paid.

The unimproved capital value of mines may be ascertained at the direction of the council, upon the basis of the output, as follows:—

- (1) *Coal and Shale Mines*.—A sum equal to 3s. per ton of large coal and shale, and 1s. 6d. per ton of small coal, on the average annual output during the preceding three years.
- (2) *Other Mines*.—A sum equal to 20 per cent. of average annual value of ore or mineral won during the preceding three years.

In the case of idle or undeveloped mines the unimproved capital value is calculated by multiplying the annual rental, if any, by twenty.

The improved capital value is the amount for which the *fee-simple* estate of the land, with all improvements and buildings thereon, could be sold.

The assessed annual value is nine-tenths of the fair average rental of land, with improvements thereon, but must not be less than 5 per cent. of the improved capital value.

In the City of Sydney Crown lands are ratable whether built upon or not, and in addition the underground mains of the gas and hydraulic power companies are ratable. The following properties are exempt, viz., lands vested in and used for the University or any of its colleges; lands vested in the Railway Commissioners or in the Metropolitan Water, Sewerage and Drainage Board; the Sydney Harbour Trust lands unless leased for private purposes; lands vested in trustees for purposes of public recreation, health, or enjoyment; hospitals, benevolent asylums, or other buildings used solely for charitable purposes; buildings used solely for public worship; State schools and schools certified under the Public Instruction Act, and playgrounds in connection therewith. Properties of the Commonwealth Government are not ratable, though a contribution is made to the funds of the council in respect of part of them.

In municipalities and shires under the Local Government Act all lands, including areas vested in the Railway Commissioners and the Sydney Harbour Trust, are ratable, except the following:—Lands vested in the Crown or public body or trustees and used for public cemeteries, commons, reserves, or free libraries; lands used for public hospitals, public benevolent institutions, or public charities, or for the University of Sydney or a college thereof; Crown lands which are not occupied or are occupied only by public works in course of construction; church lands belonging to religious bodies, used for public worship, or solely as the clergyman's residence; public roads, streets, wharves, etc; lands belonging to and used for schools registered under the Bursary Endowment Act, or certified under the Public Instruction (Amendment) Act, 1916, including playgrounds belonging to and used in connection with such schools.

In the following table are shown the aggregate valuations used for assessing rates on ratable property and the value of improvements in local government areas in the year 1928. Complete data as to the value of improvements in shires is not available as only a few of the country shires record the improved capital or assessed annual value, but for the purpose of completing the table, it has been assumed that in the aggregate improvements in country shires are equivalent to the unimproved value.

Division.	Unimproved Value of Ratable Land.			Value of Improvements on Ratable Land.		
	Total.	Average Per Head.	Average Per Acre.	Total.	Average Per Head.	Average Per Acre.
	£000	£	£ s.	£000	£	£ s.
Metropolitan—						
City of Sydney†	61,162	556	18,853 18	129,837	1,180	40,023 15
Other Municipalities	99,723	89	660 5	188,669	169	1,248 15
Shires	8,699	190	30 12	8,181	178	28 16
Total, Metropolitan	169,584	133	386 16	326,627	257	744 19
Country—Municipalities	37,775	73	26 1	78,049	151	53 16
Shires	149,852	233	1 6	†149,852	233	1 6
Total Incorporated Areas ...	357,211	147	3 1	554,528	228	4 14

† Excluding Federal properties not ratable, Harbour Trust and Railway properties and ratable underground mains.

‡ Estimated.

Lands leased from the Crown and assessed on a capitalised rental basis are included above at such capitalised value.

The unincorporated portion of the Western Division contains about 80,200,000 acres, of which 76,000,000 acres are pastoral or agricultural lands held under lease from the Crown at annual rentals. The unimproved capital value of these leaseholds assessed at twenty times the annual rent payable to the Crown would not exceed £3,500,000

A comparative summary of the unimproved and improved capital values, and the assessed annual value of ratable property, excluding lands coming within the exemptions noted above, is shown in the following statement.

The valuations for the City of Sydney exclude the values of Federal properties which are not ratable, and the value of underground mains laid in the city by gas and hydraulic power undertakings which are ratable on the basis of length, also, in 1928, Sydney Harbour Trust and railway properties.

Division.	1921.	1926.	1928.
Unimproved Capital Value.			
Metropolitan—			
City of Sydney	35,887,412	44,758,056	61,162,239
Other Municipalities*	57,290,654	84,803,345	99,723,112
Shires*	4,875,448	7,601,004	8,698,801
Total Metropolitan	98,053,514	137,162,405	169,584,152
Country—			
Municipalities	27,004,608	34,028,277	37,774,835
Shires	123,398,006	143,152,312	149,852,370
Total Country	150,402,614	177,180,589	187,627,205
Total Incorporated Areas ...	248,456,128	314,342,994	357,211,357
Improved Capital Value.			
Metropolitan—			
City of Sydney	99,647,060	151,528,760	190,999,120
Other Municipalities*	156,849,137	249,835,896	288,331,621
Shires*	9,750,000†	14,821,477†	16,880,124
Total Metropolitan	266,246,197	416,186,133	496,210,865
Country Municipalities	74,565,192	104,126,174	115,824,199
Assessed Annual Value.			
Metropolitan—			
City of Sydney	4,484,118	6,818,794	8,236,784
Other Municipalities*	10,718,438	18,924,404	20,827,802
Shires*	‡	928,218†	1,068,635
Total Metropolitan	‡	26,671,416	30,133,221
Country Municipalities	5,354,867	8,035,997	9,136,595

* Kuring-gai is included as a municipality. † Partly estimated. ‡ Not available.

Since 1921 the unimproved capital values have increased by £108,750,000 or 40 per cent. viz., by £71,530,000 or 73 per cent. in the metropolitan areas and by £37,220,000 or 25 per cent. in the country districts. The increase in the country shires (excluding that due to the incorporation of two new shires in the Murrumbidgee Irrigation Area) was nearly £25,000,000 or 20 per cent. As the urban and residential lands in shires are not relatively large this represents roughly the assessed increment of rural land values in the period. In making comparisons, however, allowance should be made for the operations of the Valuer-General in revaluing lands which had been undervalued formerly, therefore it is probable that the proportionate increase as indicated by the figures in the foregoing statement is larger than the actual increase.

The ratio of assessed annual value to improved capital value in 1928 was 4.3 in the City of Sydney and 7.2 in the other metropolitan areas, and 7.9 in country municipalities. As the assessed annual value is nine-tenths of the actual annual value, the proportions per cent. of annual value to improved value were 4.8 per cent., 8 per cent., and 8.8 per cent., respectively.

It is the practice in the City of Sydney to derive the aggregate improved capital value of properties by capitalising the fair average rental at 5 per cent. For this reason the ratio of the assessed annual to the capital values of city properties is lower than the ratios for properties in suburban and country municipalities. It is noteworthy, however, that the appreciation of value which may be regarded as part of the return on capital value, has been more rapid in the city than in suburban and country municipalities.

The value of improvements, ascertained by deducting the unimproved from the improved values, indicates that very great increases have occurred in all divisions:—

Areas.	Value of Improvements.		
	1921.	1926.	1928.
Metropolitan—	£	£	£
City of Sydney	63,760,000	106,771,000	129,837,000
Other Municipalities*	99,558,000	165,033,000	188,609,000
Shires*	4,875,000	7,220,000	8,181,000
Total, Metropolitan	168,193,000	279,024,000	326,627,000
Country Municipalities	47,561,000	70,098,000	78,049,000
Total Municipalities and			
Metropolitan Shires	215,753,000	349,122,000	404,676,000

*Kuring-gai is included as a Municipality.

Valuations by the Valuer-General.

Up to the end of the year 1929 valuations had been issued by the Valuer-General in respect of 110 municipalities and in Kuring-gai and 26 other shires, including one shire valued in 1924 in which the more recent valuations have been made by the council in terms of the amending legislation of 1924. All the districts in the County of Cumberland have been valued by the Valuer-General except the city of Sydney. The valuations are revised triennially, and the totals shown below are derived from the latest valuation or revaluation prior to 31st December, 1929. These assessments are made under the Valuation of Land Act, which provides that all lands shall be valued on a freehold basis, and that all lands shall be valued except those owned by the Commonwealth Government, unoccupied lands owned by the State Government, and Crown reserves, parks, etc. When preparing the rate books of the council, adjustments are made to provide for the exclusion of non-ratable properties and for the difference between the value of the fee-simple and the capitalised-rent value of leases held from the Crown. Therefore, the valuations of the Valuer-General are considerably greater than the values of ratable lands shown in councils' returns, which are summarised in the table on page 233.

A summary of the results of the latest valuations is shown below:—

District.	Municipalities.†				Shires.†			
	Number.	Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value.	Number.	Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value.
Metropolitan Area...	48	£000 121,117	£000 328,662	£000 24,941	3	£000 10,232	£000 20,261	£000 1,288
Balance of County Cumberland ...	11	4,297	11,871	812	3	2,377	7,328	420
Newcastle and Suburbs ...	11	10,198	27,963	2,103	...	...	...	...
Other Country ...	41	14,439	45,627	3,461	15 { 4	21,070 4,046	47,579 *	2,778 *
Total ...	111	150,051	414,123	31,317	21 { 4	33,679 4,046	75,168 *	4,486 *

* Not assessed. † Kuring-gai is included as a municipality.

The average ratio between the assessed annual value (representing nine-tenths of the fair average rental value) and the improved capital value shown above is 7.6 per cent. in metropolitan municipalities, and 7.5 per cent. in country municipalities, and 6.1 per cent. in the shires in which these values were assessed.

TAXATION BY LOCAL GOVERNING BODIES.

The total revenue collected in 1928 by all the local governing bodies from rates and charges amounted to £9,105,934, equal to £3 14s. 11d. per head of the population residing in the taxable districts. This amount includes rates collected by the municipalities, £4,524,630, rates collected by shires, £1,551,386; and rates and charges collected by the various Water and Sewerage Boards referred to later, £3,029,918.

The amount of special and loan rates includes the Harbour Bridge and Main Roads rates levied by councils.

The distribution of the total amount is as follows:—

Local Bodies.	General Rates.	Special and Loan Rates.	Total.	Per head of population living in local areas.
	£	£	£	£ s. d.
*Municipalities(including City of Sydney)	3,288,996	1,235,634	4,524,630	2 11 11
*Shires ...	1,316,739	234,647	1,551,386	2 5 0
†Metropolitan water and sewerage charges.	2,716,184	...	2,716,184	1 16 3
†Hunter District water and sewerage charges.	306,911	...	306,911	1 10 2
*Grafton and South Grafton Water Board	6,823	...	6,823	1 1 1
Total ...	£ 7,635,653	1,470,281	9,105,934	3 14 11

* 1928.

† 1928-29.

The total amount per head of population was £1 6s. in 1911, and £2 11s. 2d. in 1921.

A comparative statement of the local government rates and charges collected in each of the last five years will be found on pages 132 and 133 of this Year Book, where they are considered in relation to the total taxation imposed in the State.

City of Sydney—Rating.

In 1916 the City Council adopted the principle, embodied in the Local Government Act of 1906, of levying rates for general expenditure upon the unimproved value. Formerly the rates had been levied on the annual rental, with an additional rate since 1909 on the improved capital value. The maximum rate is fixed at 6d. in the £. The exemption from rating was removed from Crown lands in 1916, and the council was authorised to collect rents in respect of gas and hydraulic mains, etc., in the streets, which cannot be assessed on the basis of unimproved value.

The following table shows the rates struck and the total amounts levied by the City Council annually since 1917. The amount of rates levied prior to 1917 is shown in the 1922 issue of the Year Book at page 341.

Year.	City Fund.		Year.	City Fund.		Harbour Bridge and Main Roads Rates.
	Rate struck in the £. on u.c.v.	Total Amount Levied.		Rate struck in the £. on u.c.v.	Total Amount Levied.	
1917	pence. 3½	£ 455,040	1923	pence. 4½	£ 713,018	£ 75,054
1918	3½	465,988	1924	3½	651,338	93,048
1919	4½	587,376	1925	3½	652,397	139,436
1920	4½	623,766	1926	3½	655,921	139,447
1921	5	747,656	1927	3½	821,381	195,501
1922	4½	729,096	1928	3½	842,463	191,171

The rate struck in 1929 was 3½d. in the £ and the total amount levied was about £946,231. The rate for 1930 is 3½d.

In 1923 and subsequent years a rate of ½d. in the £ on the unimproved capital value was levied in respect of the Sydney Harbour Bridge. In addition, rates have been levied for the Main Roads Board since 1925.

Suburban and Country Ratings.

Suburban and country municipalities may levy rates of four kinds, viz., general, special, local, and loan rates, and certain of them may be required to levy special rates in respect of main roads and the Sydney Harbour Bridge. A general rate of not less than 1d. in the £ must be levied on the unimproved capital value, but if this minimum rate is more than sufficient to meet the requirements of the area the Governor may allow the council to levy a lower rate. The maximum amount leviable in a municipality is limited as follows:—(a) For the general rate alone—the amount yielded by a rate of 2d. in the £ on the unimproved capital value and 1s. 6d. on the assessed annual value taken together; (b) the total of all rates (except water local and sewerage local rates) the yields of 2d. on the unimproved capital value and 2s. on the assessed annual value; (c) water local rate alone or sewerage local rate alone, the yield of 2s. in the £ on assessed annual value. A general rate exceeding 3d. in the £ on unimproved capital value may not be levied upon a mine worked for minerals other than coal or shale. In special cases where the rate as stated above would yield less than the amount required for the purpose of the rate, the Governor may alter the limit by proclamation.

In 1928 the general rates levied in the metropolitan municipalities ranged from 2½d. to 5½¹⁵/₁₆ d., and in the country from 1d. to 18d.

The first year in which the general rate was levied on the unimproved capital value was 1908, and a comparison of the general rates struck for various years since then is shown below.

The figures for the metropolitan municipalities exclude the City of Sydney but include all those municipalities in the metropolitan district

as defined by Schedule IV of the Local Government Act of 1919, and listed on page 226 of this Year Book:—

General Rate.	Number of Municipalities.*									
	1908.		1916.		1921.		1926.		1928.	
	Metro- politan.	Coun- try.	Metro- politan.	Coun- try.	Metro- politan.	Coun- try.	Metro- politan.	Coun- try.	Metro- politan.	Coun- try.
1d. under 2d. ...	4	28	2	21	...	5	...	3	...	1
2d. „ 3d. ...	11	36	5	28	1	9	1	14	2	14
3d. „ 4d. ...	21	38	18	41	7	18	7	20	12	21
4d. „ 5d. ...	9	26	19	29	20	33	22	28	14	25
5d. „ 6d. ...	3	9	3	16	18	28	16	24	20	21
6d. „ 7d. ...	...	2	...	4	1	23	1	25	...	26
7d. „ 8d. ...	...	2	...	1	...	11	...	8	...	10
8d. „ 9d. ...	...	...	...	1	...	6	...	6	...	9
9d. and over ...	...	1	...	1	...	3	...	4	...	6
Total ...	48	142	47	142	47	136	47	132	48	133
Amount of General Rates levied* £	547,110		954,340		1,508,332		2,111,493		2,446,533	

* Excluding City of Sydney.

There has been a tendency towards higher rating, particularly in the country municipalities, where the rise in assessed value of ratable property has been less than in the suburbs. The number of country municipalities in 1926, as stated in the table, does not include Cessnock, which was part of Cessnock Shire until 1st November, 1926, and the number in 1928 includes Tumut which was merged into Gadara Shire in July, 1928.

One hundred and fifty-two municipalities, other than the City of Sydney, levied rates other than the general rate, e.g., special, local, and loan rates on the unimproved capital value in 1928, ranging from $1\frac{1}{2}$ d. to 24d. in the £, and seventeen on the improved capital value, ranging from $1\frac{1}{2}$ d. to 4d. in the £. Including the Sydney Harbour Bridge rate and the rates requisitioned by the Main Roads Board, the amount of such rates levied in 1928 was £1,044,463.

The amount of rates levied in 1926, by the five suburban municipalities ratable in connection with the Sydney Harbour Bridge was £34,077, and by six municipalities (Kuring-gai being included) was £49,717 in 1928 and £51,781 in 1929. The rates requisitioned from municipalities by the Main Roads Board amounted to £179,711 in 1926 and to £217,381 in 1928. These amounts are exclusive of contributions by the City of Sydney.

Shire Ratings.

In the shires the kinds of rates which may be levied are similar to those in municipalities. They are levied upon the unimproved capital value except in a few cases where a small special rate has been imposed on the improved value. The minimum general rate is the same as in the municipalities and the maximum amounts leviable are as follows:—(a) For the total of the general rate only—the sum yielded by a rate of 2d. in the £ on the unimproved capital value of all ratable land in the shire; (b) for the total of all rates in urban areas (other than general, water local, and sewerage local) the yield of 2s. in the £ on the assessed annual value of ratable land in the urban area; (c) the total of water local alone or sewerage local alone, the yield of 4d. in the £ on assessed annual value. As in municipalities the limits may be altered by proclamation if after inquiry it appears that the limit is less than is needed for the purposes of the rate.

Particulars relating to the general rates levied in the shires in various years since 1907, the first year the shires were in operation, are shown in the following table:—

The following table		Shires.						
General Rate in £.		1907.	1911.	1916.	1921.	1926.	1928.	
							Number.	Unimproved Capital Value.
d.								£
1	1	1	1	...	...	...	...	...
1 ¹ / ₂	1	3	2	...	...	...	...	...
2	3	2	5	1	...	...	...	...
2 ¹ / ₂	...	...	...	...	1	...	...	...
3	104	64	20	13	7	4	...	6,823,941
3 ¹ / ₂	...	3	1	...	1	2	...	2,264,353
4	10	23	15	8	4	6	...	11,097,104
4 ¹ / ₂	...	1	...	1	...	1	...	948,867
5	...	...	...	...	1	...	...	...
5 ¹ / ₂	12	22	33	12	8	8	...	13,103,930
6	...	1	...	1	1	1	...	1,493,308
6 ¹ / ₂	...	...	6	7	7	4	...	7,222,603
7	...	...	...	...	1	1	...	1,370,678
7 ¹ / ₂	3	14	53	83	78	71	...	72,287,591
8	...	...	...	...	3	3	...	2,610,083
8 ¹ / ₂	...	...	...	...	...	1	...	766,030
9	...	...	...	4	14	21	...	22,558,350
9 ¹ / ₂	...	...	...	...	1	1	...	616,589
10	...	...	...	6	9	13	...	15,327,744
Total ...	...	134	134	136	136	136	137*	158,551,171
Amount of General Rate levied £	358,751	461,971	633,973	959,446	1,260,618			1,316,739

* Excluding Woy Woy formed in 1928.

The tendency towards higher taxation is very marked. In 1907 the predominant rate of 1d. in the £ was levied in 104 shires and only 25 shires imposed a higher rate, whereas, in 1928, only 27 shires levied a rate lower than 2d., 71 shires levied the rate of 2d., and 39 councils took advantage of the special provisions of the Act, and were allowed, after inquiry, to levy rates beyond that amount.

On 28 per cent. of the ratable property in shires the general rate was under 2d. in the £ in 1928, on 46 per cent. the rate was 2d. and 26 per cent. was subject to even higher rates.

In addition to the general rates, additional general, special, local, or loan rates were levied by 83 shires. They ranged upwards from $\frac{1}{2}$ d. in the £, the highest being 10 $\frac{1}{2}$ d. in the £.

The purposes for which these special, local, and loan rates were imposed included the following:—Roads and street improvements and maintenance, water supply, drainage, electricity, street lighting, street watering, sanitary and garbage services, parks, fire brigade, town improvements, and payment of interest, etc., on loans current.

The total amount of general and additional general rates levied in 1928 was £1,316,739, equal to an average rate of 1.99d. in the £, and the special and local rates (including the Sydney Harbour Bridge and Main Roads rates levied in the metropolitan area) amounted to £234,647. These amounts represent the rates actually levied in respect of the year 1928, and do not agree with the amounts shown in the following tables, which include interest on rates in arrears.

The amount of rates levied by the three metropolitan shires ratable in connection with the Sydney Harbour Bridge was £18,110 in 1926, and

by two shires £11,706 in 1928 and £12,311 in 1929. The rates requisitioned by the Main Roads Board from shires amounted to £32,275 in 1926, and to £27,535 in 1928, the decrease being due to the exclusion of Kuring-gai—now a municipality.

City of Sydney Finances.

The City Council conducts its affairs under the Sydney Corporation Acts and is not bound by the provisions of the Local Government Acts. Its accounts in recent years however, have been kept in the same manner as those of other local bodies, so that the financial statements show the income accrued and expenditure incurred, during the period to which they relate.

The rates and other city revenues are paid into, and the expenses not otherwise provided for are defrayed out of the City Fund. Receipts and disbursements relating to the public markets, and to resumptions of land, etc., are recorded separately, but these accounts are subsidiary to the City Fund, to which their balances are transferred at the end of each year. The financial operations of the city electricity undertaking form a separate account.

The receipts from the various funds in 1928 amounted to £4,063,853, including the City Fund, £1,206,417; the Public Markets Fund, £145,484; the Resumptions Account, £196,270; the Electricity Supply Fund, £2,249,796; other funds, £74,715; rates collected in respect of the Harbour Bridge and the Main Roads Board, £191,171.

The disbursements in 1928 amounted to £4,099,618, viz., City Fund, £1,037,369; Public Markets Fund, £129,067; Resumptions Account, £429,962; Electricity Supply Fund, £2,283,533; other funds, £28,516; and Harbour Bridge and Main Roads rates, £191,171.

The following is a statement of the expenditure and income of the City Fund in the year 1928.

Particulars.	Public Markets.	Resumptions.	Other.	Total.
	£	£	£	£
Expenditure—				
Salaries and wages	24,249	12,076	474,282	510,607
Stores and sundries	12,756	15,111	326,234	354,101
Insurance and rates	20,454	36,089	19,970	76,513
Electricity	5,722	977	42,108	48,807
Interest	52,328	308,141	141,222	501,691
Sinking Fund	13,558	57,568	33,553	104,679
Total, City Fund	129,067	429,962	1,037,369	1,596,398
Insurance Fund ... ..	...	...	...	28,516
Harbour Bridge and Main Roads Rates ... ..	...	...	...	191,171
Electricity Works Fund ... ..	...	...	...	2,283,533
Total, Expenditure ... ..	...	...	...	4,099,618
Income—				
Rates ... ..	.....	.....	842,463	842,463
Rents and hire	85,132	196,015	21,446	302,593
Dues and proceeds	59,625	.....	22,127	81,752
Licenses, fees and fines ... ..	.....	.....	25,206	25,206
Sundries	727	255	295,175	296,157
Total, City Fund	145,484	196,270	1,206,417	1,548,171
Insurance Fund ... ..	...	...	...	74,715
Harbour Bridge and Main Roads Rates ... ..	...	...	...	191,171
Electricity Works Fund ... ..	...	...	...	2,249,796
Total, Income ... ..	...	...	...	4,063,853

Salaries and wages absorbed 32 per cent. of the expenditure from the City Fund and interest and sinking fund contributions 38 per cent—over 60 per cent. of the latter item of expenditure was incurred in respect of resumptions.

The income of the Public Markets Fund in 1928 exceeded the expenditure by £16,417, after the payment of interest and sinking fund contributions amounting to £65,886. The Queen Victoria Buildings brought in a revenue of £36,645, and the receipts from the municipal markets and cold storage works amounted to £84,341.

The receipts of the resumptions account were £196,270, and the disbursements £429,962, showing a debit of £233,691. The principal items of the disbursement were interest and sinking fund contributions £365,709.

City of Sydney—Liabilities and Assets.

The following is a summary of liabilities and assets of all funds of the City of Sydney as at 31st December, 1928:—

Liabilities.		Assets.	
	£		£
Reserves, Revenue Accounts, etc.	3,847,609	Landed Properties, Baths, and Sundries	11,776,138
Sinking Funds ...	2,286,960	Machinery, Plant, Furniture, Stores, etc.	11,957,215
Debentures current ...	20,526,648	Investments—	
Bank Balances ...	1,809,704	Sinking Funds	2,137,207
Sundry Creditors ...	2,249,249	Other ...	842,591
	£30,720,200	Bank Balances and Cash	2,812,314
Excess of Assets ...	639,486	Sundry Debtors ...	870,693
		Discount and Flotation Expenses on Loans	339,801
		Sundries ...	623,727
Total ...	£31,359,686	Total ...	£31,359,686

The amount of discount and flotation expenses on loans shown above is a fictitious asset, being in reality the amount not yet paid from revenue to meet the difference between the face value of debentures sold and the net amount of proceeds received and utilised for loan expenditure, after deducting discount in accordance with terms of issue, underwriting charges, and other expenses of flotation. The item shown is in effect a charge against future revenue, and is written down annually. The amount of flotation expenses and discounts written off in 1928 from the various funds was £21,525.

The total amount of debentures outstanding at the end of 1928 was £20,526,648, and the accumulated sinking fund £2,137,207, leaving the net indebtedness on capital account at £18,389,441.

The debentures included £10,536,785 borrowed in connection with electric lighting £6,882,630 for resumptions, and £943,233 for public markets. The proceeds of such loans have been spent mainly on reproductive municipal works, and in 1928 the various funds were debited with £1,004,682 to meet annual interest charges and £185,379 for sinking fund contributions. After meeting these charges, however, there was a net debit of £35,765 on all funds for the year.

Landed properties, baths, etc., which comprise about 38 per cent. of the assets, include such large items as public markets, £1,470,433; town hall, etc., £1,087,043; resumptions, £5,899,721; land and buildings used for the electricity works, £2,233,867. The investments of the accumulated sinking fund, £2,137,207, consisted of State and Commonwealth Government loans and State Treasury deposits £1,249,324, Municipal Council of Sydney debentures £843,400, and Commonwealth Bank deposits £44,483.

Progress of City of Sydney.

The following table shows the progress of the City of Sydney since 1924:—

Particulars.	1924.	1925.	1926.	1927.	1928.
Area Acres	3,244	3,244	3,244	3,244	3,244
Population No.	109,180	106,350	107,880	109,640	110,000
Value*—	£	£	£	£	£
Unimproved Capital ...	44,663,151	44,735,763	44,758,056	61,352,514	61,162,239
Improved Capital ...	141,629,260	145,633,840	151,528,760	185,394,260	190,999,120
Assessed Annual ...	6,373,317	6,553,523	6,818,794	8,001,840	8,236,784
City Fund*—					
Income—Rates ...	651,338	652,397	655,921	821,381	842,463
Other sources	354,193	351,088	475,387	622,998	363,954
Total ...	1,005,531	1,003,485	1,131,308	1,444,379	1,206,417
Expenditure	930,211	1,065,020	1,152,743	1,325,746	1,037,369
Public Markets Account—					
Income	125,377	126,909	132,605	129,972	145,484
Expenditure	116,457	127,912	124,583	128,069	129,067
Resumptions Account—					
Income	112,768	144,892	177,011	239,799	196,270
Expenditure	215,452	246,535	256,226	419,269	429,962
Electricity Works Fund—					
Income	1,611,767	1,700,454	1,870,989	2,135,780	2,249,796
Expenditure	1,404,496	1,646,846	1,909,425	2,157,818	2,283,533
All Funds—					
Total Income	2,855,443	2,975,740	†3,460,970	†4,193,797	4,063,853
Total Expenditure ...	2,666,616	3,086,313	†3,587,126	†4,246,020	4,099,618
Excess of Income ...	188,827	(-)110,573	(-)126,156	(-)52,223	(-)35,765
All Funds—					
Liabilities	17,779,157	19,198,054	21,746,233	25,860,663	30,720,200
Assets	18,479,941	19,914,698	22,428,281	26,544,103	31,359,686
Excess of Assets ...	700,784	716,644	682,048	683,440	639,486
Loans outstanding ...	11,910,553	12,513,421	14,288,088	15,306,812	19,075,148
Sinking Fund	1,417,114	1,667,372	1,867,801	2,085,236	2,137,207

(—) Denotes excess of Expenditure.

* Excluding properties not ratable.

† Includes Sydney Harbour Bridge and Main Roads rates not included prior to 1926.

‡ Excluding subsidiary accounts, Public Markets, and Resumptions.

Properties in the city are revalued for rating purposes every three years. There were revaluations in 1924 and 1927. The increased values shown for 1925 and 1926 are those caused by the inclusion of new properties for assessment purposes and the decrease in 1928 was due to the exclusion of the Harbour Trust and railway properties of which the unimproved value was £1,137,631. The value of Federal Government properties is not included in the figures shown above, the unimproved capital value in 1923 being £1,150,934.

The total liabilities and assets increased by about 70 per cent. between 1924 and 1928, the balance-sheet showing an excess of assets amounting to £639,486 in the latter year. During the same period the loans outstanding increased by 60 per cent., and the sinking fund by 51 per cent. The sinking fund in 1928, represented 11.2 per cent. of the indebtedness.

FINANCES OF SUBURBAN AND COUNTRY MUNICIPALITIES AND OF SHIRES.

The Local Government Act prescribes that there must be a general fund in each area, to which must be paid the proceeds of all general and additional general rates, loans, moneys received as grants or endowment from the Government, and miscellaneous income not required by law to be carried to other funds. The expenditure from the general fund must be on administration, health, roads, other public services, and repayment of loans.

There must be a special fund for each special rate levied, and for each work or service conducted by the Council in respect of which the special rate has been made, and the fund may be used only for the purposes of such work or service. A local fund also must be kept for each local rate levied, with restrictions similar to those in the case of the special funds, and the expenditure of the local fund is confined to works in the specified portion of the area.

A trading fund must be kept in respect of each trading undertaking conducted by the Council, into which all moneys received, whether from rates or other sources, loans, transfers, etc., must be paid, and a separate account must be kept. The fund may be applied only to the maintenance of the works, payment of interest and principal of loans, or other purposes incidental to the working of the undertaking.

All loan proceeds must be used for the specific purpose for which the loans were obtained, and may not be transferred from one fund to another, except by authority of the Minister.

The revenue of special and local funds must provide the money to meet not only the ordinary cost of maintaining the services, but also the obligations of the corresponding loan funds.

In addition to the above-mentioned funds, there must be a trust fund, which consists of receipts from the Government pending transfer to appropriate funds, deposits from contractors, etc., and any other amounts held in trust by the Council.

According to the ordinances under the Act, accounts must be "Income and Expenditure Accounts," kept by double entry, and each "fund" must have a separate banking account. Thus there is shown for each general, special, local, or trading fund a revenue account, or profit and loss account, giving the total expenditure chargeable for the period, whether paid or unpaid, and the total income for the same period, whether received or outstanding. A balance-sheet also is required for each fund with appropriate liabilities and assets, and aggregate balance-sheets and revenue accounts must be published. Only "realisable" assets may be shown, so that roads, bridges, drains, and other constructive works are excluded.

Expenditure and Income.

A summary of the expenditure and income of all municipalities and shires is shown below for the year 1928. The statement relates to income accrued and expenditure incurred irrespective of amounts actually received and paid. In regard to the City of Sydney the expenditure and income of the City fund and its subsidiary accounts are shown under the heading of

"General Fund," but the classification of the items is only approximate, as the City accounts are not compiled in the same form as those of the other councils.

Particulars.	City of Sydney.	Other Metropolitan Municipalities.	Country Municipalities.	Shires.	Total.
Expenditure.					
General Fund—	£	£	£	£	£
Administration	154,666	178,429	128,630	221,909	683,634
Works	126,799	2,410,638	792,507	2,456,868	5,786,812
Health Administration	255,113	403,782	313,163	128,110	1,100,168
Public Services	129,864	218,632	107,246	45,609	501,351
Municipal or Shire Property	89,788	36,969	31,805	13,500	172,062
Interest on Loans and Overdrafts, etc.	501,691	245,370	70,977	78,228	896,266
Miscellaneous	558,164	228,242	38,247	48,944	873,597
Total (General Fund)	1,816,085	3,722,062	1,482,575	2,993,168	10,013,890
Trading Accounts	2,283,533	77,133	916,093	147,154	3,423,913
Special and Local Funds ... ..	...	178,303	376,533	171,207	726,043
Total Expenditure	4,099,618	3,977,498	2,775,201	3,311,529	14,163,846

Income.					
General Fund—	£	£	£	£	£
General Rates (inc. Interest, etc.)	842,463	1,774,367	708,682	1,333,375	4,658,887
Government Endowment ... ..	...	...	...	261,315	261,315
Public Works—Loan Rates ... ..	...	364,708	83,237	52,065	500,010
Government Grants ... ..	...	175,463	138,310	1,007,937	1,321,710
Other ... ..	...	323,833	39,719	39,904	403,456
Public Health ... ..	...	198,319	245,381	121,456	565,156
Public Services ... ..	...	39,565	37,021	17,228	93,814
Municipal or Shire Property ... ..	...	36,477	64,618	32,912	134,007
Other	971,594	65,450	30,119	21,622	1,088,785
Total (General Fund)	1,814,057	2,978,182	1,347,087	2,887,814	9,027,140
Trading Accounts	2,249,796	93,513	1,051,370	181,687	3,576,366
Special and Local Funds ... ..	...	143,114	412,675	169,871	725,660
Total Income	4,063,853	3,214,809	2,811,132	3,239,372	13,329,166

The amounts shown above include part of the loan receipts and expenditure, the total amount of which is shown on page 249. Rates levied for the Main Roads Board and the Sydney Harbour Bridge are included also.

The total expenditure by municipalities other than the City of Sydney, amounted in 1928 to £6,752,699 or £4 2s. 8d. per head of population in those areas, and the expenditure by the shires, to £3,311,529 or £4 16s. 2d. per head. Expenditure on works was the largest item, viz., £3,203,145 in the municipalities, and £2,456,868 in the shires.

The expenditure from the general funds (which include the loan funds) on the actual maintenance and construction of works of a public character, viz., roads, streets, bridges, culverts, drains, wharves, ferries, etc., amounted to £5,121,294, of which the sum of £2,210,054 was expended by the municipalities in the metropolitan area, £699,702 by country municipalities, and £328,738 by the shires. The expenses of supervision, such as

the salary of the engineers, etc., amounted to £209,981, of 2.7 per cent. of the total amount expended on public works. Sundry expenses amounted to £328,738. The foregoing amounts relate to the general funds only, and do not represent the total expenditure of the suburban and country areas under the headings stated.

The cost of administration is relatively high in the country on account of the sparse population and small revenue of many of the country municipalities, as in such cases the expenses on account of salaries, etc., are larger proportionately than those in the more closely settled localities. The cost in the metropolitan municipalities (other than Sydney), represented 4.8 per cent. of the total expenditure from general funds, 8.7 per cent. in the country municipalities and 7.4 per cent. in the shires.

The total income of the suburban and country municipalities in 1928 was £6,025,941, or £3 13s. 9d. per head, and of the shires £3,239,272, or £4 14s. per head. These amounts include Government endowments and grants.

The amount of Government assistance to municipalities in 1928 was £378,285, viz., £58,360 paid in respect of loans taken over by the Main Roads Board, and £319,925 included in the income shown above. Of the last mentioned amount, £313,773 represented contributions to public works (roads, streets, bridges, etc.); and £5,534 were granted for health administration, chiefly as contributions to inspectors' salaries, etc. The shires received Government assistance amounting to £1,270,696 in 1928, including £1,007,937 on account of public works.

The trading accounts of the city and of the shires relate to the supply of electricity and those of the other municipalities to gas and electricity.

Only a few metropolitan councils are concerned directly in the supply of these services, gas being supplied for the most part by non-governmental works, and electricity from the City of Sydney undertaking, or from private enterprises. The special and local funds relate to water supply, sewerage, street-watering, street-lighting, footpaths, guttering, drainage, fire brigades, parks and reserves, and other miscellaneous matters.

The expenditure and income of the special and local funds for the suburban and country municipalities and the shire in the year 1928 are shown in the following tables:—

Special or Local Funds.	Expenditure.				Income.			
	Municipalities.		Shires.	Total.	Municipalities.		Shires.	Total.
	Metro- politan. (ex. Sydney).	Country.			Metro- politan. (ex. Sydney).	Country.		
	£	£	£	£	£	£	£	£
Water Supply ...	124	220,812	13,787	234,723	6	254,421	14,236	268,663
Sewerage and Drain- age ...	1,633	66,540	...	68,173	1,655	72,883	...	74,538
Street Lighting ...	24,714	60,541	31,321	116,576	24,756	57,263	30,922	112,941
Roads, Streets, &c. ...	141,435	25,230	94,085	260,750	104,139	24,901	93,251	222,291
Other ...	10,397	3,410	32,014	45,821	12,558	3,207	31,462	47,227
Total ...	178,303	376,533	171,207	726,043	143,114	412,675	169,871	725,660

The Harbour Bridge rates are collected by means of a special levy, and some of the councils impose a special rate in respect of contributions for main roads. Particulars of these are included in the category, roads, streets, etc.

Liabilities and Assets.

The following statement indicates the nature of the liabilities and "realisable" assets of the suburban and country municipalities and the shires as at 31st December, 1928, amounts due from one fund to another being excluded:—

Funds.	Municipalities.		Shires.	Total.
	Metropolitan (excluding Sydney).	Country.		
Liabilities—	£	£	£	£
Sundry creditors, including Loans outstanding and interest ...	5,324,077	2,831,153	1,480,477	9,635,707
Debts due to Government, including interest ...	119,381	2,907,545	422,618	3,449,544
Bank overdraft ...	426,875	319,412	478,802	1,225,089
Other (including Deposits on Contracts and unexpended Government grants) ...	75,217	81,522	187,302	344,041
Total ...	£ 5,945,550	6,139,632	2,569,199	14,654,381
Assets—				
Cash in hand and bank balances ...	616,366	619,450	460,257	1,696,073
Outstanding rates and interest ...	215,006	199,284	237,612	651,902
Sundry debtors ...	221,041	336,636	134,913	692,590
Furniture ...	54,143	52,465	32,339	138,947
Stores and materials ...	56,782	119,080	63,600	239,462
Land, buildings, plant and machinery	1,789,537	6,574,174	1,594,645	9,958,356
Other ...	329,842	107,396	6,864	444,102
Total ...	£ 3,282,717	8,008,485	2,530,230	13,821,432
Excess of Assets ...	...	1,868,853	...	...
Excess of Liabilities ...	2,662,833	...	38,969	832,949

The policy of constructing works from loan moneys has been more extensively followed in the metropolitan area—where development has been rapid—than in the country districts. These loans are raised on the security of future revenue, and neither this nor the value of works such as streets, etc., constructed from loans are included in the balance-sheet. There is, consequently, little significance in the total relationship of the assets shown to liabilities. The statement, however, contains interesting items of an informative character.

FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT.

The central Government of the State affords financial assistance to the local governing bodies in the form of endowment or of grants for roads and other necessary works, or for special purposes. Endowments are paid to shires only, assistance to municipalities being paid as grants. The endowment is distributed amongst the shires according to an apportionment made by the Government in every third year. The matters to be taken into account in making the distribution are specified in the Act, *e.g.*, the necessity for developing new districts, the extent to which the council and the people of the areas concerned undertake to share in the development by constructing works or paying local rates, the rate levied and its relation to the maximum rate.

The amount of endowment, which, in recent years had been about £150,000 per annum, was increased in 1928 to £250,000. The allotment for the three years commencing 1st January, 1928, was as follows:—

31 shires received no endowment.

11	„	received	£500 and under	£750 per annum.
16	„	„	£750	£1,000
14	„	„	£1,000	£1,500
8	„	„	£1,500	£2,000
27	„	„	£2,000	£3,000
9	„	„	£3,000	£4,000
8	„	„	£4,000	£5,000
6	„	„	£5,000	£6,000
6	„	„	£6,000 and over.	

With two exceptions, the amounts of £5,000 or over are allotted to areas in the coastal division, and the shires which receive the largest endowment are Macleay, £6,400, Erina and Bellingen, £7,000, Tenterfield, £7,200, Manning, £7,500, and Dorriggo, £8,000.

Beyond this endowment the State on occasion makes available funds for specific purposes which have usually been the subject of application by individual local governing bodies. Prior to 1925 the State voted to shires and municipalities considerable sums annually for the maintenance of main roads and bridges, and these sums are included below under the heading "Public Works." In 1925, however, the Main Roads Board came into being and increased funds were set aside for main roads construction and maintenance. Of these funds large sums are disbursed through the councils of municipalities and shires, and are included in the following comparison of funds provided by the State and Commonwealth Governments and expended by the councils.

Year.	Municipalities.			Shires.			Total Shires.	Total Government Assistance.
	Public Works.	Other.	Total Municipalities.	Endowment.	Public Works.	Other.		
	£	£	£	£	£	£	£	£
1921	51,466	5,772	57,238	178,420	152,181	572	331,173	388,411
1922	102,639	5,884	108,523	156,861	183,712	374	340,947	449,470
1923	66,688	5,259	71,947	150,296	166,697	472	317,465	389,412
1924	43,382	6,213	49,595	146,705	265,218	306	412,229	461,824
1925	232,354	5,959	238,313	149,345	613,045	7,253	769,643	1,007,956
1926	242,051	5,441	247,492	147,525	958,447	7,123	1,113,095	1,360,587
1927	298,184	9,196	307,380	153,410	1,051,454	1,296	1,206,160	1,513,540
1928	372,133	6,152	378,285	261,315	1,067,937	1,444	1,270,690	1,648,981

The amounts stated above do not include repayable advances by the State or Federal Governments. The expenditure from such advances in the years 1924 to 1928 is shown in the table on page 249.

LOANS.

Loans obtained by the Council of the City of Sydney prior to 1905 were raised under the provisions of special Acts of Parliament. In 1905 the Sydney Corporation Amendment Act authorised the Council to raise loans, with the approval of the Governor, by the sale of debentures secured upon the corporate rates and revenues of the Council from whatever source arising, and to issue new debentures to repay any such debentures upon maturity. The term of the debentures may not exceed in the aggregate fifty years, and a sinking fund must be established for each loan raised under the Act of 1905, on the basis of 3 per cent. per annum compound

interest over the period of fifty years. The maximum rate of interest was fixed at 4 per cent. until 1917, when amending legislation provided that the rate of interest be fixed by the Council with the approval of the Governor. The Act of 1917 provided also that the Council, in lieu of issuing debentures subject to the provisions of the Act of 1905, may issue debentures to secure the repayment of its loans, together with interest thereon, by equal yearly or half-yearly instalments. An Act passed in 1928 authorised the City Council to raise loans outside Australia.

Loans obtained by the councils of other municipalities and of shires are raised usually under the Local Government Act, 1919, as amended by subsequent Acts.

In respect of municipal loans, the Local Government Act prescribes that a council may not borrow any moneys which, with existing loans, will cause the total indebtedness to exceed 20 per cent. of the unimproved value of ratable land in the area. If the outstanding loans of a municipality exceed this proportion, the council may not raise a special loan until the total amount falls below the limit.

Loans under the Local Government Act may be raised by four methods, viz., limited overdraft, and renewal, ordinary, or special loans.

Limited overdrafts may be obtained for any purpose upon which the council is authorised to expend a fund (except a trust fund) or for any purpose for which moneys raised by ordinary loan may be applied. The sum raised may not exceed half the preceding year's income of the fund in respect of which it is obtained.

The purpose of limited overdrafts is to enable the councils to finance a regular programme of works and services and to meet extraordinary expenditure during periods of inequality or fluctuations in the collection of rates. In view of this fact, the Department of Local Government suggests to the councils as a general principle that the amount of the overdraft at end of each year, or, at least, at the end of each council's term, should not exceed the amount outstanding for rates in the case of the general or other fund of which rates constitute the principal source of revenue.

Renewal loans are for the purpose of repaying or renewing any other loan, and for paying the expenses incidental thereto.

Ordinary loans are those for such purposes as carrying out orders as to boundary works, discharging liability arising under verdicts or orders of legal tribunals, establishing or extending sanitary and garbage services, acquiring machinery and equipment for the construction of roads and bridges, establishing road punts and road ferries, and meeting liabilities transferred to the council consequent upon alteration of boundaries. An ordinary loan may be obtained notwithstanding that it will raise the total indebtedness of the council above the prescribed limit, but while there is an excess the council may not raise a special loan.

Special loans are those which do not fall within the other three categories. A council must give notice of a proposal to raise a special loan, and the ratepayers have the right, by petition of at least 25 per cent. of those concerned, to demand that a poll be taken as to whether they approve of the loan, and as to whether the loan rate (if any) shall be on the unimproved or the improved capital value. Shire special loans may not exceed in the aggregate a sum equal to three times the amount of the income, as shown by the last year's accounts.

The councils may accept from ratepayers advances not exceeding £500 for the purpose of carrying out necessary works for which the lenders have applied. Such loans must be free of interest or at a rate not exceeding 4 per cent., and the amount accepted by a council may not exceed one-tenth of the total revenue for the preceding year.

Renewal, ordinary, or special loans under the Local Government Act are secured, firstly upon the income of the fund to which the loans belong, and, secondly, upon the income of the council arising from any source.

Unless the loans are repayable by instalments at intervals of one year or less, there must be a sinking fund for loan repayment in every fund in respect of which a renewal, ordinary, or special loan has been raised, and in each year the council must transfer to the sinking fund a sum of not less than the amounts which were intimated in its applications for approval of the loans. In the case of loans repayable by annual or more frequent instalments, the reserve for repayment is optional.

The following statement shows the fixed loans by shires and municipalities outstanding on 31st December, 1928, and the sinking funds set apart to meet them; overdrafts are not included.

Division.	Loans Outstanding.			Accumulated Sinking Funds.	Interest accrued during 1928.
	New South Wales.	London.	Total.		
	£	£	£	£	£
Municipalities—					
Sydney	14,075,148	5,000,000	19,075,148	2,137,207	1,008,204
Other Metropolitan ...	4,905,471	...	4,905,471	31,416	246,937
Country	2,495,071*	...	2,495,071	56,986	132,099
Total Municipalities	£ 21,475,690*	5,000,000	26,475,690	2,225,609	1,387,240
Shires	942,955	305,000	1,247,955	11,787	62,372
Total	£ 22,418,645*	5,305,000	27,723,645	2,237,396	1,449,612

* Including £92,546 raised in Victoria.

The interest accrued in respect of the City of Sydney as shown above represents the amount payable for a full year on the loans outstanding at the end of the year. The amount of such interest payable in London in 1928 was £280,000.

Apart from the liability to the State under the Country Towns Water and Sewerage Act, and the Main Roads Act, the total amount of municipal and shire loans outstanding at the close of the year 1928 was £27,723,645, and towards this amount there was at the credit of the sinking funds a sum of £2,237,396. The average rate of interest payable on loans of municipalities was 5.43 per cent., viz., Sydney, 5.29 per cent., other metropolitan 5.75 per cent., and country municipalities 5.43 per cent. The average rate on the shire loans was 5.93 per cent.

Since 1921 the loan indebtedness of the municipal and shire councils has increased by 142 per cent. The following comparison shows the loans outstanding at the end of 1916 and of each year since 1921, also the ratio of loans to the unimproved capital value of ratable property in the incorporated areas.

At 31st Dec.	Amount of Loans Outstanding (excluding bank overdrafts).				Proportion to Unimproved Capital Value of Ratable Property.			
	City of Sydney.	Other Municipalities.	Shires.	Total.	City of Sydney.	Other Municipalities	Shires.	Total.
	£	£	£	£	per cent.	per cent.	per cent.	per cent.
1916	7,050,100	*1,692,133	*148,367	8,890,600	22.62	2.91	0.14	4.56
1921	9,341,742	1,982,953	109,573	11,434,268	26.03	2.43	0.08	4.60
1922	10,378,813	2,224,728	174,192	12,777,733	28.78	2.56	0.13	4.94
1923	10,514,324	2,547,815	327,769	13,389,908	29.10	2.68	0.23	4.93
1924	11,910,553	3,271,613	523,070	15,705,236	26.67	3.22	0.36	5.40
1925	12,513,421	3,864,718	632,518	17,010,657	27.97	3.57	0.45	5.66
1926	14,283,088	4,388,356	1,036,391	19,712,815	31.92	3.82	0.67	6.27
1927	15,306,812	5,667,016	1,202,773	22,176,601	24.95	4.57	0.76	6.44
1928	19,075,148	7,400,542	1,247,955	27,723,645	31.19	5.38	0.79	7.76

* Including bank overdrafts.

The effect of triennial valuations is noticeable in the decline in the ratio of loans in the City of Sydney in 1924 and 1927. The ratio of loans to the improved capital value in 1928 was nearly 10 per cent. in the City of Sydney, and 1.83 per cent. in the other municipalities.

It is apparent that the borrowing by the municipalities and shires is, in the aggregate, well within the limits allowed by the Local Government Act already referred to. The relatively extensive loans of the City of Sydney are invested largely in the acquisition of revenue-producing assets, and considerable amounts have been expended on resumptions for city improvements which are partly reproductive. More than 50 per cent. of the city loans current at 31st December, 1928, were invested in the city electricity works from which electricity is supplied not only to the city proper but to a large number of other local areas.

The place of redemption and the approximate amount of interest payable on the foregoing loans of the City of Sydney, the other municipalities and the shires in New South Wales are shown in the following table. The amounts are exclusive of advances from the Government.

Year.	Principal raised in—			Interest accrued during each year.		
	Australia.	London.	Total.	In Australia. †	In London.	Total. †
	£	£	£	£	£	£
1916 ...	8,066,745†	823,855	8,890,600	316,371	33,208	349,579
1921 ...	9,922,268	1,512,000	11,434,268	423,746	85,690	509,436
1926 ...	16,480,315	3,232,500	19,712,815	835,089	187,862	1,022,951
1927 ..	18,951,601	3,225,000	22,176,601	944,226	186,685	1,130,911
1928 ...	22,418,645	5,305,000	27,723,645	1,155,198	294,414	1,449,612

† Includes interest on bank overdrafts in years 1916 to 1926 inclusive.

‡ Includes bank overdrafts, except in City of Sydney.

The amounts stated above do not include the sums due to the Government as capital debt on water and sewerage and drainage works, viz., £2,779,622 owing by municipalities and shires at the end of 1928, and £77,636 in respect of the Grafton and South Grafton works. The statement is exclusive also of loans of county councils, viz., £413,726 in 1928, and the interest, £24,828, which was payable in Sydney.

The amount of loan expenditure by local governing bodies in New South Wales during the years 1924 to 1928 is shown below:—

Districts.	1924.	1925.	1926.	1927.	1928.
Government Advances.					
Municipalities—	£	£	£	£	£
Metropolitan (excluding Sydney)	9,320	4,493	...	738	24,631
Country	3,366	14,937	17,377	32,058	348,112
Shires	26,594	76,028	85,072	71,779	81,464
Total, Government Advances	39,280	95,458	102,449	104,575	454,207
Other Loans.					
Municipalities—					
City of Sydney	719,500	690,604	1,805,820	3,299,516	3,144,892
Metropolitan	464,342	461,482	625,635	996,968	1,264,461
Country	218,808	287,636	279,143	510,496	485,685
Shires	150,116	231,191	346,109	305,448	270,404
County Councils	193,556	66,032	51,537	39,127	55,972
Total, other Loans	1,746,322	1,736,945	3,108,244	5,151,555	5,221,414
Total, Loan Expenditure	1,785,602	1,832,403	3,210,693	5,256,130	5,675,621

The amount of expenditure by councils from loan funds provided by, but not repayable to the State is excluded. The total loan expenditure by local government bodies over and above Government loans was £5,221,414 in 1928.

MUNICIPAL GASWORKS.

The Local Government Act authorises the councils of municipalities and shires to construct gasworks, and to supply gas for public lighting and for use by private consumers. Twenty country municipalities maintain works for coal gas, and others have installed acetylene and other plants. The metropolitan districts are served by private companies.

Details of the accounts of the works of various municipalities are shown in the section "Local Government" of the Statistical Register, 1928-29. A summary of the gasworks revenue accounts of the municipalities with coal gasworks in 1928 is shown in the following statement:—

Expenditure.				Income.			
		£				£	
Manufacture	92,626			Private lighting	109,732		
Distribution	10,259			Public lighting	2,219		
Management, General and Special				Sale of residual products ...	15,425		
Charges	14,308			Other	2,826		
Depreciation and obsolescence ...	9,770						
Interest on Loans and Overdrafts	3,934			Total Trading Income	130,202		
Other	512			Other Income	6,142		
Total Cost of Gas and Residuals...	131,409			Balance	565		
Other Expenditure... ..	5,500						
Total	£ 136,909			Total	£ 136,909		

The quantity of gas sold to private consumers during 1928 was 288,441,000 cubic feet at prices ranging from 5s. 2d. to 12s. 2d. per 1,000, the general average being 7s. 8d. per 1,000 cubic feet. The quantity used for public lighting was 7,213,000 cubic feet, and the revenue therefrom represented 6s. 2d. per 1,000 cubic feet. Income was derived also from rates, and from the sale of residuals, etc. On the operations during 1928 there was a loss of £565 after paying interest amounting to £3,934. Nine municipalities incurred a loss. The average cost of manufacture was about 6s. 4d. per 1,000 cubic feet, the cost being calculated by deducting from the cost of gas and residuals the income derived from the sale of residuals.

The balance-sheet of the gasworks trading undertakings for 1928 is given below:—

Liabilities.				Assets.			
		£				£	
Sundry creditors	10,607			Buildings, land, stock, plant, etc.			
Loans including interest accrued	67,838			Sundry debtors, including amounts	292,082		
Overdrafts	17,060			due from other funds	27,920		
Excess of Assets	242,942			Fixed deposits and investments...	10,596		
				Bank balance, and cash	7,849		
Total	£338,447			Total	£338,447		

The total excess of assets amounted to £242,942, and none of the municipalities showed a deficit at the close of 1928.

MUNICIPAL AND SHIRE ELECTRICITY WORKS.

The supply of electricity for lighting and for power is undertaken directly by the councils in many local governing areas. In some cases the councils have established works for the generation of electricity, while in others it is purchased in bulk from another council, from Government works, or from collieries, etc., and distributed to consumers. In addition, electricity for street and private lighting and power in defined areas is supplied under contract with the councils from works which are privately owned and operated, and are not included in the statistics relating to the municipal and shire undertakings which follow.

The largest undertaking is that of the City of Sydney, where operations were commenced in 1904 to supply electricity within the city, and subsequently the works were extended to supply a large area beyond the city boundaries. In 1928 the undertaking distributed electricity direct to consumers in the city and in thirty-four other municipalities, and supplied it in bulk to the local councils of six municipalities and three shires.

Certain other local government bodies obtain electricity in bulk from the generating stations of the Railway Commissioners of New South Wales, the Victorian State Electricity Commission, or the New South Wales Government power station at Port Kembla. A number of southern localities and the Federal Capital are supplied from the Burrumbidgee hydro-electric works.

The St. George County Council purchases from the Railway Commissioners bulk supplies of electricity which are sold for street lighting and to private consumers in its area, and the Clarence River County Council has constructed hydro-electric works on the Nymboida River.

A statement of the expenditure and income of the electricity concerns of the local governing authorities in 1928 is shown below:—

Particulars.	City of Sydney.	Other Municipalities.	Shires.	County Councils.		Total.
				St. George.	Clarence River.	
<i>Expenditure.</i>	£	£	£	£	£	£
Generation of electricity	396,121	171,703	14,865	...	2,328	585,017
Purchase of electricity...	387,563	231,194	48,702	37,674	...	705,133
Distribution	333,113	88,089	13,054	11,086	1,966	447,308
Management and Special Charges	224,207	94,766	24,410	8,294	2,500	354,177
Depreciation	271,017	108,027	16,897	18,434	...	414,375
Interest on loans, &c. ...	583,691*	83,121	21,156	15,008	9,747	712,723
Other	87,821	64,434	8,246	3,516	1,190	165,207
Total Expenditure £	2,283,533	841,334	147,330	94,012	17,731	3,383,940
<i>Income.</i>						
Sales	2,200,512	833,737	137,411	104,980	21,429	3,298,069
Rent of Meters, &c. ...	35,979	28,611	6,423	2	1,480	72,495
Private Installations ...	...	41,765	4,522	120	1,032	47,439
Loan Rates ... ..	...	69,485	26,955	14,766	...	111,206
Interest and Sundries ...	13,305	20,068	6,552	4,423	1,344	45,692
Total Income £	2,249,796	993,666	181,863	124,291	25,285	3,574,901
Surplus	(—)33,737	152,332	34,533	30,279	7,554	190,961

* Includes contribution to Sinking Fund, £80,700.

The operations of the electricity undertakings of the local governing bodies during 1928 resulted in a surplus of £190,961. The City of Sydney undertaking showed a deficit of £33,737 after paying interest £502,991, and contribution to sinking fund £80,700, the accumulated losses to 31st December, 1928, being £94,212. These losses, incurred in recent years, are attributed to a reduction in the price of electricity introduced in 1925, and they were discharged in full during 1929, when, by reason of savings and a reduction in the cost of generation, substantial profits were made.

During the year 1928 the electricity sold by the City of Sydney electricity works, including bulk sales to other councils, amounted to 300,984,176 units, for which the receipts were £2,200,512, or 1.75d. per unit. The cost per unit was 1.79d., including contribution to sinking fund, .32d. per unit.

A dissection of the sales by the other local government bodies—except three municipalities and six shires for which complete data are not available—is shown below:—

	Units.	Receipts.	Per Unit.
		£	d.
Private lighting	26,848,075	620,146	5.54
Public Lighting	7,986,623	110,288	3.31
Power and bulk sales	53,765,665	343,790	1.53
Total Sales	88,600,363	1,074,224	2.91

The cost of the electricity sold—88,600,363 units—was £985,912, or 2.67d. per unit.

The receipts from the sales during 1928 as stated above do not include rentals for meters, motors, etc., or other sources of revenue accruing to undertakings.

A summary of the liabilities and assets of the electricity works at 31st December, 1928, is shown below:—

Particulars.	City of Sydney.	County Councils.		Municipalities.	Shires.	Total.
		St. George.	Clarence River.			
<i>Liabilities.</i>	£	£	£	£	£	£
Loans	10,536,785	227,335	185,059	1,430,170	403,982	12,783,331
Overdrafts	1,393,341	...	7,433	52,236	4,814	1,457,824
Sundry creditors, &c....	3,935,856	17,547	2,482	100,338	24,546	4,080,769
Total Liabilities £	15,865,982	244,882	194,974	1,582,744	433,342	18,321,924
<i>Assets.</i>						
Land, buildings, plant, &c.	14,028,223	316,739	199,788	2,214,316	485,388	17,244,454
Sundry debtors, &c. ...	826,611	19,736	8,217	188,725	38,014	1,081,303
Bank balance and cash	400,735	22,991	1,227	144,172	49,718	618,843
Fixed Deposits and Investments	668,332	60,630	...	59,568	22,855	811,385
Total Assets £	15,923,901	420,096	209,232	2,606,781	595,975	19,755,985
Excess of Assets £	57,919	175,214	14,258	1,024,037	162,633	1,434,061

City of Sydney Electricity Undertaking.

The City of Sydney undertaking has obtained supplies partly by generation in a power station at Pyrmont, and partly by purchase from the Railway Commissioners. Since January, 1929, supplies have been available from a new power station constructed by the Council at Bunnerong, and the contract with the Railway Commissioners was terminated on 30th September, 1929. The cost of the first section of the Bunnerong station, consisting of an installation capable of meeting a demand of 100,000 kilowatts, was approximately £3,500,000.

The following table shows the rapid growth of the City Electric Lighting Undertaking. The figures represent the actual profit or loss made in specified years, excluding balances brought forward:—

Particulars.	1911.	1916.	1921.	1926.	1928.
Units Sold 000	17,768	48,532	108,177	234,609	300,984
Expenditure (exc. interest and depreciation) £	95,428	211,263	639,483	1,236,355	1,510,737
Income £	172,693	433,996	943,125	1,870,989	2,249,796
Surplus... .. £	*94,861	222,733	303,642	634,634	739,059
Interest, depreciation and other charges against Surplus £	66,470	192,071	329,234	673,070	772,796
Net gain £	28,391	30,662	(—)25,592	(—) 38,436	(—) 33,737

*Includes surplus of a purchased company £17,596.

(—) Denotes loss.

The City Council purchased from the Railway Commissioners 71,317,000 units, at a cost of £189,504, in 1926, and 140,719,700 units, at £373,184, in 1928.

ELECTIONS IN MUNICIPALITIES AND SHIRES.

The councils of the municipalities and shires are elected triennially, and information relating to the elections in the years 1925 and 1928 was shown in the 1928-29 issue of the Year Book.

FIRE BRIGADES.

The public services for the prevention and extinguishing of fires are controlled by a Board of Fire Commissioners, constituted under the Fire Brigades Act, 1909, as amended in 1919 and 1927. Its jurisdiction extends over certain districts which were defined in the Act or added by proclamation. The areas under the oversight of the Board are grouped to form fire districts. They include the City of Sydney, nearly all the area comprised by the suburban municipalities, also Newcastle and suburbs, Broken Hill, and other municipalities, and twenty-one shires in respect of towns contained in them.

The Board consists of a president, appointed by the Governor for a term of five years, and seven members, elected for a term of three years, viz., one by the councils of the Sydney and suburban municipalities, one by the councils of the other incorporated areas to which the Act applies, three elected by the fire insurance companies, one by the volunteer fire brigades, and one by the permanent firemen who are members of the Fire Brigades Association of New South Wales. The votes are apportioned among the councils according to the amount contributed to the fund administered by the Board, viz., £100 or under, one vote; over £100 and not exceeding £500, two votes; over £500 and not exceeding £1,000, three votes; over £1,000, four votes. Each insurance company and each volunteer and permanent fireman is entitled to one vote.

In each year the Board makes an estimate of the amount proposed to be expended in the various fire districts during the ensuing year, and of this sum the councils of the municipalities and shires concerned contribute one-fourth, the insurance companies one-half, and the Government one-fourth. Until the year 1927, the contributions were made in equal shares by the councils, the insurance companies, and the Government. The estimates must be made so that the contribution by the councils in a fire district will not exceed $\frac{1}{4}$ d. in the £ on the unimproved capital value of ratable land, though the Board may exceed this limit with the consent of the Minister if requested by the councils to do so.

Where a fire district is comprised by more than one municipality or shire, the amount to be paid by each council is apportioned according to the annual value of ratable land within the district. Payments by the insurance companies are based on the amount of premiums payable in respect of fire risks within each district. With the consent of the Governor, the Board may borrow money up to £250,000.

The Board establishes and maintains permanent fire brigades and authorises the constitution of volunteer brigades, which are subsidised out of the funds. In the metropolitan districts in 1929 there were 76 fire brigades comprised by 621 permanent firemen whose services are wholly at the Board's disposal and 257 volunteers. In the country the principal stations are at Newcastle and Broken Hill, and there are brigades at 121 other localities, the number of firemen being 69 permanent and 1,184 volunteers.

The following table shows the revenue account of the Board of Fire Commissioners for the year ended 31st December, 1929:—

Revenue.				Expenditure.			
£				£			
Balance from 1928 ...	...	...	12,552	Administration ...	...	...	14,279
Subsidy from Government ...	...	...	105,226	Salaries including Payments to			
Subsidy from Municipalities and				Volunteers ...	...	...	230,508
Shires ...	...	...	105,226	Repairs to Buildings, Plant, and			
Subsidy from Fire Insurance Com-				other expenses ...	...	...	121,191
panies and Firms ...	...	...	210,452	Equipment and Property Charges			
Other Sources ...	...	...	9,180	Balance ...	...	...	18,442
Total ...	...	...	£442,636	Total ...	...	...	£442,636

The contributions by the fifty-four municipalities and shires comprising the Sydney fire district in 1929 represented 5s 4d. per £100 of assessed annual value of the ratable land, as compared with 5s. 7d. in 1919.

Contributions amounting to £209,847 were received from 135 insurance companies and £605 from 39 firms who insured goods with companies not registered in New South Wales. In the Sydney fire district such contributions represented 13.8 per cent. of the premiums less reinsurances, and in the other districts the proportions ranged from 4.06 per cent. to 25.63 per cent.

The estimates of proposed expenditure by the board for the year 1930 amounted to £441,548, viz., £335,252 for the Sydney fire district and £106,296 for other districts.

The balance-sheet of the Board as at 31st December, 1929, is shown in the following statement:—

Liabilities.		Assets.	
	£		£
Fund Account	38,385	Land and Buildings	369,734
Trust Accounts	2,898	Plant and Fire Appliances	234,849
Debentures and Accrued Interest	174,505	Stocks on Hand	28,668
Revenue and Expenditure Account	18,442	Fixed Deposit, Bank Balances	
Property and Equipment Fund ...	400,026	and Cash	4,813
Administration Account	3,898		
Total	£638,064	Total	£638,064

WATER SUPPLY AND SEWERAGE SERVICES.

The Metropolitan Water, Sewerage, and Drainage Board administers extensive water supply and sewerage works in Sydney and environs, and the Hunter District Water Supply and Sewerage Board exercises similar functions in Newcastle and surrounding districts. These works have been constructed mainly from the loan moneys which form part of the public debt of the State, and interest and sinking fund charges in respect of the capital debts are payable from the revenues of the Boards.

The receipts and expenditure of the metropolitan services until 1st April, 1925, and of the Hunter District services until 1st July, 1928, were included in the Consolidated Revenue Account of the State. On the dates mentioned these accounts were separated from the Consolidated Revenue Account; the Metropolitan Board was entrusted with the management of its own moneys and a separate account was opened in the Treasury in respect of the Hunter district services.

In towns outside the areas administered by the Metropolitan and Hunter District Boards, works have been constructed in accordance with the provisions of the Country Towns Water Supply and Sewerage Act of 1880, which, with amendments, was embodied in the Local Government Act of 1919. On the application of a council the Minister for Public Works may construct water supply or sewerage works out of moneys voted for the purpose by Parliament. As a general rule the works are transferred upon completion to the care of the council. The capital cost is repayable by instalments, with interest on the unpaid balances at a rate fixed from time to time. The term of repayment is fixed with regard to the durability of the works, the maximum period being one hundred years.

At 30th June, 1929, water supply services constructed wholly or in part from loan funds by the Department of Public Works were in operation in seventy-six country towns, sewerage works in thirteen towns, and storm water drainage in sixteen towns. The total cost of the waterworks was approximately £3,224,725, and of services and stormwater channels £876,788. The financial transactions in connection with these services are included in the accounts of the municipalities and shires, except the waterworks at Broken Hill and Hillgrove, which are administered by the central Government, and at Junee, where the water is delivered by the Public Works Department into service reservoirs, and the Grafton and South Grafton system which is controlled by a corporate board representing the two municipalities.

The debts due to the central Government on account of waterworks (including the Grafton and South Grafton services) at 30th June, 1929, amounted to £2,672,559, and on account of sewerage and drainage works to £863,825; the aggregate of the annual instalments of principal and interest was £137,471 in respect of the debt due on waterworks, and £43,482

for sewerage works. In addition two municipalities and four shires administered water services in respect of which there was no capital debt to the State Government.

A summary of the revenue and expenditure of the various systems is shown below—the particulars of the Metropolitan and Hunter District services being for the year ended 30th June, 1929, and those of the other works for the calendar year, 1928.

Services.	Capital Expenditure. †	Gross Revenue.	Working Expendi- ture.	Net Revenue.	Interest.	Surplus.
	£	£	£	£	£	£
<i>Water Supply.</i>						
Metropolitan	20,646,392	1,657,511	606,719†	1,050,792	920,375§	130,417
Hunter District	2,716,581	222,905	91,874	131,031	134,367	(—)3,336
Grafton and South Grafton	87,503	6,823	2,311	4,512	3,145	1,367
Other Country Towns ...	2,816,101	336,544	188,347	148,197	95,076	53,121
Total Water Supply...	26,266,577	2,223,783	889,251	1,334,532	1,152,963	181,569
<i>Sewerage and Drainage.</i>						
Metropolitan	13,388,357	1,058,673	290,652	768,021	603,043	164,978
Hunter District	1,222,691	84,006	26,980	57,026	33,659	23,367
Other Country Towns*	717,061	70,849	34,965	35,884	30,321	5,563
Total Sewerage	15,328,109	1,213,528	352,597	860,931	667,023	193,908

* Exclusive of drainage works.

† Exclusive of amounts written off expenditure in Hunter District and country towns.

‡ Includes renewals £96,272.

§ Includes Sinking Fund, £40,638.

The figures in the table show an aggregate expenditure on water supply and sewerage services amounting to £41,600,000, excluding amounts written off the cost of works in the Hunter district and country towns. The surplus revenue after providing for interest, and, in respect of the Metropolitan services, renewals and sinking fund contribution, was £375,477.

A brief statement of the liabilities and assets of the Metropolitan and Hunter District services at 30th June, 1929, and of the other works (excluding Broken Hill and Junee) at 31st December, 1928, is shown below:

Particulars.	Water Supply and Sewerage Works.				
	Metropolitan.	Hunter District.	Grafton and South Grafton.	Other Country Towns.	Total.
Liabilities—	£	£	£	£	£
Capital Indebtedness	34,161,441	3,930,781	77,636	2,779,622	40,949,480
Other	1,643,350	720,373	116	185,000	2,548,839
Total Liabilities	35,804,791	4,651,154	77,752	2,964,622	43,498,319
Assets—					
Works, &c.	34,063,441	4,609,734	94,172	3,119,214	41,886,561
Sundry debtors and outstanding rates	31,702	73,681	1,263	121,444	228,090
Cash, investments, &c.	2,309,865	10,721	1,328	147,095	2,469,009
Total Assets	36,405,008	4,694,136	96,763	3,387,753	44,583,660
Excess of Assets	600,217	42,982	19,011	423,131	1,085,341

Drainage Trusts.

In addition to the water and sewerage and drainage works to which the foregoing tables relate, thirty-three trusts for reclamation of swamp and other lands had been constituted as at 30th June, 1929, but, of these, two had been dissolved. The total area served was 134,273 acres, and the length of channels was 123 miles. The total cost as gazetted was £120,089, and the instalments amounted to £7,043. The owners of the lands improved by these works are responsible for the repayment of the capital expenditure, and they are required to provide for the cost of maintenance and administration.

Metropolitan Water Supply and Sewerage.

The Metropolitan Board of Water Supply and Sewerage was constituted in 1888 to assume control of the water supply and sewerage services in the county of Cumberland, including those under the control of the City Council. The management of the water supply was transferred to the Board in May, 1888, and of the sewerage in September, 1889. The Board's jurisdiction extends to a large district outside the county of Cumberland and embraces a strip of territory extending along the South Coast beyond Wollongong to Lake Illawarra.

The Board, now termed the Metropolitan Water, Sewerage, and Drainage Board, is constituted by a president, appointed by the Governor, and seventeen members, elected by the aldermen and councillors of the local areas concerned. For the purposes of the elections the municipalities and shires have been grouped into nine constituencies, of which the City of Sydney forms one. Eight constituencies are represented by two members each, and the other by one member. The term of office for elected members is four years, and one representative of the two-member constituencies will retire every two years.

The amount of capital expenditure on the Board's works to 30th June, 1929 was as follows:—

Nature of Expenditure.	Water.	Sewerage.	Drainage.	Total.
Loan Expenditure by—	£	£	£	£
Board to 30th March, 1925 ...	8,843,695	4,505,112	21,555	13,370,362
Board since 1st April, 1925† ...	5,828,275	3,019,131	227,390	9,074,796
Public Works Department ...	6,128,696	5,124,555	332,787	11,586,038
Municipalities (Works taken over)	98,824	301,417	19,169	419,410
Total from Loans ...	20,899,490	12,950,215	600,901	34,450,606
Interest on Works during construction paid from Revenue... ..	106	123,508	2,305	125,919
Expenditure from Public Works Fund	644	129	...	773
Total Capital Expenditure	20,900,240	13,073,852	603,206	34,577,298
Less Payments in Reduction of Capital Indebtedness	253,098	156,021	6,738	415,857
Net Capital Indebtedness* ...	20,647,142	12,917,831	596,468	34,161,441

* Subject to amendment after review by Capital Accounts Committee.

† Includes interest on works during construction.

The net loan expenditure on the various works to 30th June, 1929, was: Water £20,646,392, sewerage £12,794,194, and drainage, £594,163, or a total of £34,034,749.

The capital indebtedness of the Board to the Government was declared by the Metropolitan Water, Sewerage, and Drainage Act of 1924 to be £22,489,478, which was the net amount expended on the services by the Board and the Government as at 30th June, 1924, inclusive of works in course of construction for the Board by the Department of Public Works. This amount is under review by a financial committee, who will determine the capital indebtedness as at 1st April, 1925, and allocate it to the fund of each service, i.e., water supply, sewerage, or drainage. The determinations of the committee are to be ratified by Parliament before being adopted. The expenditure on the works which the Government had undertaken on behalf of the Board will be added to the Board's indebtedness.

The Board is required to pay to the State Treasury interest on its debt to the State at the rate chargeable to statutory bodies representing the Crown, also from 1st July, 1928, sinking fund contributions at the rate of 5s. per £100, this being the rate payable by the State in respect of its contributions to the National Debt Sinking Fund, established under the financial agreement between the Commonwealth and the States as described in the chapter entitled Public Finance. From 1st April, 1925, to 30th July, 1928, the Board paid to the State Debt Commissioners as sinking fund charges an amount equal to 5 per cent. of its gross revenue, to be applied in reduction of its debt.

The Board, with the approval of the Governor, may raise its own loans, but the debt so incurred in respect of any of its services must not exceed 20 per cent. of the unimproved value of the lands ratable for that service.

Up to 30th June, 1928, no special loans had been floated for the Board, but loan advances amounting to £412,000 in 1924-25, £1,703,000 in 1925-26, £2,000,000 in 1926-27 and £2,380,000 in 1927-28 were made to the Board by the Colonial Treasurer. These advances, amounting to £6,495,000, are being repaid by annual instalments extending over a period of twenty years from 1st January, 1930. Further advances, repayable in 1929-30, were made to the Board during 1928-29, the amount being £450,000. Particulars of the loans floated by the Board to 30th June, 1930, are shown below:—

Year.	Amount.	Price of Issue.	Rate of Interest.	Term—Years.	Repayable in—
	£	Par.	Per cent.		
1928	1,000,000	Par.	5½	20	Australia.
1929	1,500,000	£99 10 0	5½	15	"
1930	850,000	£99 10 0	6¼	20	"
1930	1,541,149	£87 5 0	5½	20	New York.

In April, 1929, the Board commenced to receive money on deposit at short call and at fixed deposit. The interest rates per annum are as follows:—Short call, 4½ per cent.; fixed deposit, six months 4½ per cent., 12 months 5 per cent., and 2 years 5½ per cent. The minimum deposit is £500.

The amount of deposits and the interest paid during each quarter are shown below:—

Quarter ended—	Amount of deposits.	Interest paid during quarter.
	£	£
30 June, 1929	402,858	...
30 September, 1929	508,557	4,283
31 December, 1929	443,604	7,944
31 March, 1930	407,649	5,356

Metropolitan Water Supply.

The sources of the metropolitan water supply are the waters of the Nepean, Cataract, and Cordeaux Rivers, draining an area of 347 square miles, with a copious rainfall. The supply is stored chiefly in four large reservoirs, viz., Prospect, from which 5,502,000,000 gallons are available by gravitation; Cataract, with a capacity of 20,743,000,000 gallons; Cordeaux, 20,597,000,000 gallons; and Avon, 47,153,000,000 gallons. There is also a small reservoir at Manly, which holds 438,000,000 gallons. At 30th June, 1929, there were 86,468,000,000 gallons of water stored in these reservoirs. Two reservoirs are under construction, viz., Nepean to hold 18,100,000,000 gallons and Woronora 15,000,000,000 gallons.

The water is conveyed from the upper storages to the Prospect dam, thence to Sydney and adjacent areas by means of tunnels, canals, etc., from which systems branch to supply Camden, Campbelltown, and other townships along the southern railway. Wollongong and several settlements on the South Coast are supplied from two reservoirs on the Upper Cordeaux River, which have a combined capacity of 433,000,000 gallons, and water for Richmond is pumped from the Hawkesbury River. There are forty-six service reservoirs and tanks below Prospect Dam, five above Prospect, and fourteen connected with the supply for the South Coast townships.

The total length of water mains as at 30th June, 1929, was 3,994 miles.

The first sewerage works in Sydney were begun in 1853, and in 1889, the date of transfer to the Metropolitan Board of Water Supply and Sewerage, there were 70½ miles of sewers in existence.

The present system consists of three main outfalls—the northern, discharging into the Pacific Ocean near Bondi; and the southern and western, discharging into the ocean at Long Bay. The northern suburbs ocean outfall, which is under construction, discharges into the ocean at North Point, in the quarantine area; part of this main is in use and when completed it will serve the suburban areas on the northern side of Sydney Harbour and Parramatta River, extending as far west as Wentworthville.

The Metropolitan Water, Sewerage and Drainage Board maintains 73 miles of channels for stormwater drainage purposes, and is authorised to levy drainage rates within areas notified by gazettal.

The following statement shows the number of houses supplied with water and those connected with the sewerage system administered by the Metropolitan Board in 1911, 1916, and in the last four years:—

Year ended 30th June.	Water Supply.				Sewerage.		
	Houses Supplied.	Total Supply during Year.	Average Daily.		Houses connected.	Length of Sewers.	Length of Storm-water Drains.
			Per House.	Per head of population supplied.			
	No.	Thousand gallons.	gallons.	gallons.	No.	miles.	miles.
1911	139,237	10,587,434	208	41.7	108,012	825	49
1916	183,598	14,374,000	214	42.9	130,638	1,022	54
1921	221,886	17,701,000	218	43.7	148,923	1,197	64
1926	268,558	24,506,739	250	50.0	176,388	1,416	61
1927	280,157	25,675,530	251	50.2	179,580	1,491	69
1928	290,926	27,321,939	257	51.3	185,058	1,578	71
1929	299,401	30,899,799	283	56.6	191,689	1,709	73

General rates for water and sewerage are levied on the assessed annual value of the premises, the water rate in 1928-29 being 8½d. in the £, and the sewerage rate 9d. The rates were 6d. and 9½d. respectively in 1911 and 1916, and 9d. and 12d. in 1921. They were reduced to 8½d. and 8d. on 1st July, 1929. Water is supplied by meter for gardens, livestock, and trade purposes at a charge of 1s. 3d. per gallon, in addition to meter rent for which the lowest rate is 8s. per annum.

Stormwater drainage rates are fixed in each area, so as to yield the revenue required to meet expenses, interest and sinking fund charges. They vary from ¼d. to 5½d. in the £ of assessed annual value.

The following statement shows particulars of the financial transactions relating to the services controlled by the Metropolitan Board in various years from 1911:—

Year ended 30th June.	Accumulated Loan Expenditure.	Gross Revenue.	Working Expenses and Management.	Renewals.	Net Revenue.	Interest on Capital.	Sinking Fund Contribution.	Surplus.
	£	£	£	£	£	£	£	£
<i>Water Supply.</i>								
1911	5,420,813	299,442	99,355	*	200,087	192,486	...	7,601
1921	10,323,252	855,751	347,298	*	508,453	473,890	...	34,563
1926	16,156,470	1,319,872	422,359	70,274	827,239	795,144	66,250	(—) 34,255
1927	17,680,175	1,399,581	483,005	75,360	841,216	872,006	69,657	(—) 100,447
1928	19,317,808	1,480,748	513,171	106,172	861,405	816,323	74,071	(—) 28,989
1929	20,646,392	1,657,511	510,447	96,272	1,050,792	879,737	40,638	130,417
<i>Sewerage.</i>								
1911	4,496,290	234,208	79,636	*	154,572	159,070	...	(—) 4,498
1921	7,329,632	615,615	229,441	*	386,174	341,675	...	44,499
1926	9,819,586	777,809	289,426	3,818	484,565	501,451	38,917	(—) 55,863
1927	10,589,916	833,384	254,777	4,712	573,895	539,638	41,818	(—) 7,561
1928	11,536,173	941,870	267,383	6,049	668,438	510,310	46,669	111,459
1929	12,794,194	1,007,884	264,404	10,170	733,310	548,298	27,725	157,287
<i>Drainage.</i>								
1926	379,956	33,790	13,602	1,966	18,222	20,189	1,688	(—) 3,655
1927	423,360	33,944	14,309	1,174	18,461	21,895	1,693	(—) 5,127
1928	518,049	45,383	17,262	345	27,776	20,316	2,274	5,186
1929	594,163	50,789	15,806	272	34,711	25,820	1,200	7,691

* Charged to Public Works Fund.

Accounts are kept on a revenue basis, and the revenue due and the expenditure incurred in respect of any year are brought into account in that year. The accumulated loan expenditure is inclusive of works in course of construction. Interest on these works is payable by the Board and until 1927-28 it had been the custom to charge to revenue interest on works during construction. In that year, however, it was decided to capitalise such interest in respect of major works, *i.e.*, those having a life estimated at not less than fifty years.

Prior to 1st April, 1925, neither renewals nor sinking fund contribution was a charge on the revenues. The former were met from the Public Works Fund, and the latter was not charged.

The Hunter District Water Supply and Sewerage.

The water supply works of the Lower Hunter were constructed by the Government under the provisions of the Country Towns Water Supply and Sewerage Act of 1880. In 1892, control of the works was transferred to a Board under the authority of a special Act.

The Board is constituted by nine members, viz., a president appointed by the Governor and eight members elected by the aldermen and councillors of the local areas concerned.

Water is obtained mainly from a dam of 5,000 million gallons capacity on the Chichester River at a point about 60 miles north from Newcastle. This supply is supplemented as required by pumping water from the Hunter River.

The sewerage scheme for the Hunter district has its outfall at Merewether Gulf, some distance south from Newcastle. The districts served are Newcastle, Adamstown, Hamilton, Lambton, New Lambton, Merewether, Waratah, Wickham, and parts of the Tarro and Lake Macquarie shires.

Particulars relating to the water supply and sewerage services of the Board at intervals since 1911 are given below:—

Year ended 30th June.	Water Supply.				Sewerage.	
	Properties supplied.	Supply during year.	Average Daily Supply.		Properties Connected.	Length of Sewer.
			Per Property.	Per Head.		
	No.	thousand gallons.	gallons.	gallons.	No.	miles.
1911 ...	17,164	675,214	108	21.5	1,465	30
1921 ...	25,874	1,711,187	181	36.2	12,218	148
1926 ...	33,997	2,668,215	215	43.0	18,071	177
1927 ...	36,600	2,970,781	222	44.5	19,219	183
1928 ...	39,262	2,994,610	208	41.6	20,043	187
1929 ...	40,222	3,387,187	230	46.1	20,637	190

A water rate of 10d. in the £ was charged up to 30th June, 1927, then it was increased to 13d. on properties with an annual value exceeding £14. A charge of 15s. per annum is payable on properties valued at £14 or less, and extra charges are made for water used for other than domestic purposes. The charge by meter is 1s. 6d. to 2s. per 1,000 gallons. The sewerage rate is 12d. in the £ of assessed annual value.

Up to 30th June, 1928, the receipts were paid into Consolidated Revenue Fund of the State and payments in connection with the services were made from that fund. No deduction was made on account of expenditure on renewals, which was met from the Public Works Fund of the State. Interest was charged against revenue only on so much of the loan capital as was revenue-producing, the balance being either capitalised or paid from Consolidated Revenue Fund. On 1st July, 1928, a special deposits account was opened in the State Treasury for the receipts and expenditure, and the capital indebtedness to the State at 30th June, 1928, was determined by agreement between the Government and the Board and declared in the Hunter District Water and Sewerage Act, 1928, to be £3,360,911, viz., water supply £2,514,483, sewerage £661,888, and storm-water drainage £184,540. The Board is required to collect sufficient rates, etc., to cover expenses and to pay interest on its capital indebtedness and sinking fund contributions at the rate of 5s. per £100.

In determining the capital indebtedness a large amount was written off in consideration of the additional cost of the Chichester waterworks owing to delay in construction as a result of the war, concessions in charges for water supplied to industrial concerns and the State railways, and considerable sums paid to the Treasury since 1907 as net surpluses and instalments to sinking fund for renewals.

Particulars relating to revenue, expenses, etc., during various years since 1911 are shown below:—

Year ended 30th June.	Capital Debt.	Gross Revenue.	Working Expenses and Management.	Interest on Loan Capital.	Net Revenue.
	£	£	£	£	£
<i>Water Supply.</i>					
1911 ...	495,747	45,711	17,774	16,970	10,967
1921 ...	1,472,074	116,320	59,895	35,556	20,869
1926 ...	3,733,126	163,807	65,328	55,819	42,660
1927 ...	4,078,397	170,601	78,397	65,938	26,266
1928 ...	2,514,483*	214,669	82,769	76,957	47,943
1929 ...	2,716,581	222,905	91,874	134,367	(—) 3,336
<i>Sewerage and Drainage.</i>					
1911 ...	170,151	8,975	3,177	2,902	2,896
1921 ...	590,790	32,164	16,007	25,328	(—) 9,171
1926 ...	719,549	68,412	22,625	31,932	13,855
1927 ...	781,452	75,175	25,578	32,968	16,629
1928 ...	846,428*	79,636	24,206	33,777	21,653
1929 ...	1,222,691	84,006	26,980	33,659	23,367

* Capital debt written down.

The interest charges in respect of waterworks in 1928-29 amounted to £134,367, as compared with £76,957 in the previous year, the increase being due to the fact that interest in respect of the Chichester works, capitalised up to 30th June, 1928, was charged to revenue in 1928-29.

ROADS, BRIDGES, AND FERRIES.

Prior to the enactment of legislation providing for the incorporation of shires, the State was divided into road districts, each under the supervision of an officer directly responsible to the Commissioner for Roads. These officers had under their care the greater part of the roads and bridges of the State outside the incorporated areas and a portion of those within such limits. Road trusts formed under various Acts had the supervision of the expenditure of certain grants for the maintenance of roads in districts chiefly of minor importance, as well as some important roads in the vicinity of the metropolis.

When the Local Government Act of 1906 commenced, the councils of the municipalities and shires took over the administration of the roads, bridges, etc., under the control of the Roads Department, with the exception of those in the unincorporated areas of the Western Division, and certain bridges and ferries proclaimed as "national works." The Act authorised payments by way of endowment to municipalities and shires, the minimum endowment payable to shires being fixed at £150,000 per annum, and the Minister was empowered to withhold payment of endowment from a council if his requirements in respect of main roads were not satisfied.

Between 1906 and 1912 the amount of endowment allotted to shires was increased from £150,000 to £360,000 approximately, but the expenditure by the councils on the important roadways was not sufficient to maintain them in a serviceable condition. It was decided, therefore, to reduce the amount of general endowment to the minimum, and to make a separate vote to councils for the upkeep of the main roads. This vote was continued until the year 1924 when an Act was passed to place the main roads under the supervision of a board.

Under existing arrangements the Main Roads Board exercises control over works (including bridges and ferries) on main and developmental roads in the Eastern and Central Divisions of the State, and the Department of Public Works has charge of governmental works on other roads in these divisions and of all road works in the Western Division, including those on main roads in the six western municipalities.

Main Roads Board.

The Main Roads Act, 1924, was brought into operation by proclamation as from 1st January, 1925, and the first Main Roads Board was appointed in the following month. Actual operations were commenced on 12th March, 1925.

The Board consists of two engineers with special knowledge of road construction, and a president. It is charged with the duty of co-operating with the local councils in the work of constructing and maintaining a well-organised system of main highways, with the primary object of developing the vacant lands in the State, of feeding the railways with traffic, of giving the primary producers access to markets, and of providing facilities for modern motor traffic. On the recommendation of the Board, any public road, except those in the City of Sydney, may be proclaimed to be a main road.

The Main Roads Act, 1924, provided for the creation of three separate funds: (1) the County of Cumberland Main Roads Fund for metropolitan main roads, i.e., those in the County of Cumberland which, for the purposes of the Act, is deemed to include the Municipalities of Katoomba and Blackheath, and the Shire of the Blue Mountains, also small sections of the Bulli, Colo, and Blaxland Shires added in 1929; (2) the Country Main Roads Fund; and (3) the Developmental Roads Fund. In terms of an amending Act passed in 1929 provision was made also for a Federal Aid Roads Fund.

The income of the two Main Roads Funds is derived chiefly from (a) the proceeds of taxes and fees in respect of motor vehicles; (b) annual subsidies from the State revenues; (c) grants from the Federal Government; (d) contributions by municipal and shire councils; (e) loan moneys appropriated for the main roads. The Developmental and Federal Aid Roads Funds consist mainly of moneys made available by the State and Commonwealth Governments. The Federal Aid Roads Fund receives also certain contributions from the Main Roads Funds; and for eight years, from 1st July, 1928, a State subsidy of at least £20,000 per annum for roads in the Western division.

The proceeds of motor taxes, fees, and penalties, as from 30th June, 1924, to 30th June, 1929, were apportioned between the two main roads funds, after a deduction of 10 per cent. had been made by the Treasury for cost of collection. The County of Cumberland Fund received half the net proceeds in respect of motor vehicles owned by residents in the road district, also the net collections in respect of public vehicles licensed under the Metropolitan Traffic Act, and the Country Main Roads Fund received the balance. Under an amending law which operated from 1st July, 1926, and was repealed in the following year, the amounts payable to the County of Cumberland Fund from these sources were limited to £106,155 and £6,300 per annum respectively, and the annual payment of motor taxes, etc., to the Country Fund was limited to £452,382. The allocation of the proceeds of motor taxation fees, etc., as from 1st July, 1929, is made in terms of the Transport Act, 1930. The Main Roads Funds receive the tax on motor vehicles, other than public vehicles, less 5 per cent. for cost of collection, half the tax on vehicles owned by residents of the County of Cumberland being paid to the County of Cumberland Roads Fund and the balance to

the Country Main Roads Fund. License fees are used to defray the cost of administration and control of traffic under the Transport Act, any surplus at the end of each financial year being payable to the Country Main Roads Fund. The proceeds of the taxation of motor omnibuses is divisible amongst the municipalities and shires and the Main Roads Board for the maintenance of the roads on which they operate.

In terms of the Main Roads (Amendment) Act, 1929, the Main Roads Board is required to pay from the Cumberland and Country Main Roads Funds (a) to the Federal Aid Roads Fund—part of the State quota under the Federal Aid Roads agreement, (b) into the sinking fund established in terms of the agreement—sums equal to 3 per cent. of loan moneys included in the State quota, (c) to the State Treasurer—sums required to provide for interest and repayment of State loans appropriated for the main roads after 1st July, 1928.

The Board may require the councils in the metropolitan road district to contribute to the County of Cumberland Main Roads Fund at a rate not exceeding $\frac{1}{4}$ d. in the £ of the unimproved capital value of ratable property, the rate payable in respect of land used for agricultural and pastoral purposes, or land in the city of Sydney, being one half the rate levied on other lands in the district. Contributions by country councils depend upon the amount expended on the main roads.

In the metropolitan district, where the levy is compulsory, the Board pays the whole cost of construction and maintenance, but the actual work may be done by the councils under its direction. In the country districts the Board may grant assistance in respect of road work to the council of any area through which a main road passes, and the council may be required to contribute part of the cost of the work as prescribed by the Act. The Board may accept voluntary offers from the councils to pay a greater proportion of the cost than is prescribed; or, in special circumstances, may pay the whole cost of any particular work; or may advance the cost, to be repaid by the councils. The maximum contribution which may be required from a country council in a year is limited to the sum which would be produced by a rate of $\frac{1}{4}$ d. in the £ of the unimproved capital value. To meet cases in which a metropolitan or country council may be unable or unwilling to carry out the work planned by the Board, power is reserved to the Governor to authorise the Board itself to do the work.

The proportion of the cost of works on country roads which is borne by the Main Roads Board varies with the class of road, as defined below. The Board pays the whole cost of a two-way strip of carriage way on State highways, two-thirds of the cost of similar works on trunk roads, and at least half the cost of works on ordinary roads.

Any road, not being a main road, may be proclaimed as a developmental road if, in the opinion of the Board, it will help to develop a district, and a portion or the whole cost of construction may be provided from the Developmental Roads Fund.

The main roads have been classified into three groups in the order of their importance, viz., (1) State highways which are the primary avenues of communication by road between New South Wales and the neighbouring States or between the coast and the far interior; (2) trunk roads which are secondary roads forming with the State highways the framework of a general system of inter-communication throughout the State; and (3) main roads not included in the other groups. Including portions in the Western Division, the length of State highways is 4,350 miles, and of trunk roads about 3,828 miles.

The length of main roads in the county of Cumberland road district at 30th June, 1929, was 599 miles including 194 miles of State highways; the councils were maintaining 315 miles and the Board 284 miles. In the country districts (excluding the Western Division) 12,955 miles of main roads have been proclaimed under the Act, and of these 3,354 miles have been classified as State highways and 2,342 miles as trunk roads. In addition there were 65 miles of secondary roads and 2,328 miles of developmental roads.

Commonwealth Grants for Main Roads.

Apart from the assistance granted by the State Government for the construction and upkeep of roads, the Commonwealth Parliament, in each year from 1st July, 1923, to 30th June, 1925, voted £500,000 from Consolidated Revenue to assist the States in developing new country by the construction of main roads. It was a condition of the grant that the States should spend a sum equal to the Commonwealth vote on the works concerned. The sum allocated to New South Wales in respect of each year's appropriation was £138,000, making a total of £414,000 for the three appropriations. In 1925-26 provision was made for additional Commonwealth grants for reconditioning and strengthening existing main roads, without any condition as to State subsidy. The maximum amount of the grant payable was fixed at £250,000, of which £69,000 were payable in New South Wales. The amounts of the Federal grants were paid into a trust fund at the Commonwealth Treasury, and made available to the States as expenditure approved by the Federal authorities was incurred.

When the Main Roads Board came into being there were unexpended balances for developmental roads amounting to £94,359 on the 1923-24 vote, £267,052 on the 1924-25 vote, and £275,860 on the 1925-26 vote, the total votes in each case consisting of £138,000 from the Commonwealth Government, and a subsidy of like amount from the State.

In 1926 the Federal Government introduced a new system of Federal aid for road construction. The Federal Aid Roads Act was passed to authorise the Commonwealth to contract agreements with the various States, providing for the distribution among the States of a sum of £20,000,000 in ten equal annual instalments for the construction and reconstruction of Federal aid roads defined as—

- (i) Main roads which open up and develop new country.
- (ii) Trunk roads between important towns.
- (iii) Arterial roads to carry the concentrated traffic from developmental, main trunk, and other roads.

It is provided that at least one-fourth of all moneys expended under the Act shall be on construction.

The funds provided by the Commonwealth are obtained from Customs duties on motor-cars and motor accessories, and each State participating in the scheme is required to expend a minimum amount equal to three-fourths of the sums provided by the Commonwealth. The State's share may be derived either from loans or from State revenue, but at least one-eighth of it must be derived from revenue, and the amount derived from loans must be subject to a sinking fund of 3 per cent. per annum at a rate of interest sufficient to extinguish the indebtedness in twenty years. In terms of the agreement New South Wales receives an annual grant of £552,000 from the Federal Government, and is required to provide annually

from its own resources £414,000, of which at least £51,750 must be from revenue. The agreement was not signed until 17th June, 1927. Therefore no grants were paid during the financial year which ended 30th June, 1927. The agreement was ratified by the State Parliament in December following.

Finances of the Main Roads Board.

A summary of the income and expenditure accounts of the funds administered by the Main Roads Board is shown below for the period from 12th March, 1925, to 30th June, 1926, and for the financial years ended 30th June, 1927 to 1929. Particulars of the moneys received and disbursed under the Federal Aid Roads agreement are included:—

Particulars.	1925-26.*	1926-27.	1927-28.	1928-29.	Total to 30th June, 1929.
<i>Expenditure.</i>	£	£	£	£	£
Construction	909,093	1,994,757	2,345,915	2,560,083	7,809,848
Maintenance	476,795	504,045	744,159	1,042,706	2,767,705
Repayment of Loans ...	145,472	91,742	143,847	240,852	621,913
Administrative Expenses ...	23,857	41,085	66,568	90,838	222,348
Plant Running Expenses (in- cluding depreciation) ...	...	25,278	59,835	72,461	157,574
Miscellaneous	7,625	14,188	5,277	7,202	34,292
Total ...	£ 1,562,842	2,671,095	3,365,601	4,014,142	11,613,680
<i>Income.</i>					
Motor taxes, fees, &c. ...	1,473,494	564,835	1,337,289	1,555,697	4,931,315
Rates requisitioned from Councils	368,166	262,058	303,586	318,576	1,252,386
Loans raised by Councils ...	...	38,282	349,747	165,147	553,176
Contributions by Councils ...	...	...	58,625	112,436	171,061
State Appropriations— From Revenue	151,877	258,000	218,500	53,750	682,127
From Loans	998,942	703,216	1,289,500	1,470,250	4,461,903
Federal Grants	387,303	...	1,110,911	560,791	2,059,005
Plant Earnings ... ..	...	37,059	67,783	66,415	171,257
Miscellaneous	5,590	17,433	30,670	89,206	142,899
Total ...	£ 3,385,372	1,880,883	4,766,611	4,392,268	14,425,134

* From 12th March, 1925, to 30th June, 1926.

The income received during 1925-26 included the motor taxes, license fees, etc., for two years, these moneys having been set aside for the main roads from 30th June, 1924. It included also receipts from two requisitions upon municipal and shire councils in the metropolitan road district, covering the period from 1st January, 1925, to 30th June, 1926. In the year 1925-26 the income from motor taxes, etc., was restricted in terms of the amending legislation noted previously, but this was offset partly by the receipt of moneys from the State for works to relieve unemployment, viz., £5,000 from revenue and £54,000 from loans, and an additional sum of £138,000 granted from revenue for developmental roads, because no Federal grants were available pending the acceptance by the State of the new Federal aid scheme. The income for 1927-28 includes allocations by the Commonwealth for the two years 1926-27 and 1927-28 and the State subsidy in respect thereof.

The expenditure and income of the various funds are shown separately in the following statement:—

Year.	Cumberland Main Roads.	Country Main Roads.	Developmental Roads.	Federal Aid Roads.	Total, All Funds.
<i>Expenditure.</i>	£	£	£	£	£
1925-26*	685,290	776,084	101,468	...	1,562,842
1926-27	969,723	1,549,365	152,007	...	2,671,095
1927-28	1,120,790	1,288,392	188,238	768,181	3,365,601
1928-29	1,071,975	1,707,453	251,992	982,722	4,014,142
Total to 30/6/29	3,847,778	5,321,294	693,705	1,750,903	11,613,680
<i>Income.</i>					
1925-26*	1,121,274	2,000,095	264,003	...	3,385,372
1926-27	716,825	888,057	276,001	...	1,880,883
1927-28	1,341,508	1,731,102	26,001	1,668,000	4,766,611
1928-29	1,307,562	1,539,137	315,569	1,230,000	4,392,268
Total to 30/6/29	4,487,169	6,158,391	881,574	2,898,000	14,425,134

*From 12th March, 1925, to 30th June, 1926.

The total expenditure by the Main Roads Board to 30th June, 1929, amounted to £11,613,680. Of this sum 33 per cent. was expended from the Cumberland Main Roads Fund, 46 per cent. from the Country Main Roads Fund, nearly 6 per cent. from the Developmental Roads Fund, and 15 per cent. from the Federal Aid Roads Fund. Commonwealth grants prior to 1927-28 are included in the accounts of the Main and Developmental Roads Funds.

Details of the expenditure and income of each of the funds during the year 1928-9 are shown in the following statement:—

Particulars.	Cumberland Main Roads.	Country Main Roads.	Develop- mental Roads.	Federal Aid Roads.	Total, All Funds.
<i>Expenditure.</i>	£	£	£	£	£
Construction	633,769	716,251	247,205	962,858	2,560,083
Maintenance	204,788	837,918	...	...	1,042,706
Repayment of Loans ...	206,789	14,199	...	19,864	240,852
Administrative Expenses ...	23,841	62,210	4,787	...	90,838
Plant Running Expenses (in- cluding depreciation) ...	...	72,461	...	...	72,461
Miscellaneous	2,788	4,414	...	...	7,202
Total	1,071,975	1,707,453	251,992	982,722	4,014,142
<i>Income.</i>					
Motor Taxes, Fees, etc. ...	326,101	984,732	...	244,864	1,555,697
Rates requisitioned from Councils	318,576	...	...	...	318,576
Loans raised by Councils ...	165,147	...	...	...	165,147
Contributions by Councils ...	72,013	21,287	...	19,136	112,436
State Appropriations— From Revenue ... ..	...	2,000	...	51,750	53,750
From Loans—Relief work ...	18,000	55,000	65,000	...	138,000
Other	350,000	370,000	250,000	362,250	1,332,250
Federal Grants ... ..	...	8,228	563	552,000	560,791
Plant Earnings ... ..	...	66,415	...	...	66,415
Miscellaneous	57,725	31,475	6	...	89,206
Total	1,307,562	1,539,137	315,569	1,230,000	4,392,268

The Main Roads Act made provision for certain financial adjustments to be made by the Board with the Treasury and the municipal and shire councils in respect of moneys expended on metropolitan main roads, or borrowed by the councils for these roads, prior to the constitution of the Main Roads Board. Under these provisions the Board assumed liabilities in respect of interest and repayment of such moneys, including the councils' share of the cost of works carried out by the Government. The Board was responsible also for the repayment with interest of half the loan moneys advanced by the Treasurer for the County of Cumberland main roads including sums expended during the financial years 1920-21 to 1924-25. Subsequently it was provided that the whole of moneys advanced after 30th June, 1928, for the Cumberland and country main roads must be repaid from the respective funds. The loans which are thus chargeable to the Main Roads Funds are not included in the statement of liabilities shown below in the balance-sheet as at 30th June, 1929. The principal amounts outstanding at that date were £1,864,742 chargeable to the Cumberland Fund and £408,500 chargeable to the Country Main Roads Fund.

Particulars.	Cumber- land Main Roads.	Country Main Roads.	Develop- mental Roads.	Federal Aid Roads.	Total, All Funds.
<i>Liabilities.</i>					
	£	£	£	£	£
Sundry Creditors	19,916	22,833	8,522	12,999	64,270
Insurance Reserve ... ..	...	3,957	...	...	3,957
Balance of Income and Expenditure Accounts	639,391	837,097	187,869	1,147,097	2,811,454
Total	659,307	863,887	196,391	1,160,096	2,879,681
<i>Assets.</i>					
Balance of Fund and Sub-advance Accounts	434,892	345,713	190,055	475,431	1,446,091
Trust Account, Commonwealth Treasury ... ..	...	...	...	643,160	643,160
Stock on Hand	24,378	21,343	1,977	18,231	65,929
Depot Buildings, Plant and other Assets	67,611	227,647	...	5,001	300,259
Sundry Debtors—					
Councils (Rates, Loans, Interest)	62,606	259,560	4,359	18,235	344,760
Federal Government Grant ...	...	...	...	...	...
Miscellaneous	69,820	9,624	...	38	79,482
Total	659,307	863,837	196,391	1,160,096	2,879,681

Length of Roads.

After the extension of the system of local government there was a great increase in the mileage of public roads. The length of roads under Government control on 30th June, 1906, prior to the transfer to the councils, was 48,311 miles; 195 miles were under the care of road trusts, and the Government paid subsidy to the municipal councils in respect of 1,338 miles of roads within their areas. There were also about 8,000 miles of roads and streets belonging to the municipal councils.

Statistics as to roads are collected triennially, and in 1927 the length of roads in the State was approximately 109,457 miles, of which 58 miles were controlled by the Government, 10,229 miles were in the municipalities, 93,482 miles in the shires, and 5,688 miles were in the unincorporated areas of the Western Division, also administered by the Government. The nature of the roads may be seen in the following statement:—

Divisions.	Blocked, Metalled, Gravelled, Ballasted, etc.	Formed only.	Cleared only.	Natural surface.	Total.
	miles.	miles.	miles.	miles.	miles.
National	50	8	...	...	58
Municipalities	5,026	2,006	1,846	1,351	10,229
Shires	19,693	14,937	29,992	28,860	93,482
Western Division	177	220	2,932	2,359	5,688
Total	24,946	17,171	34,770	32,570	109,457

The principal roads leading southward from Sydney are the Prince's Highway (351½ miles), traversing the coastal districts to the Victorian border; and the Hume or Great Southern Highway (362½ miles), via Goulburn and Gundagai to Albury. The Federal Highway (37 miles) runs from the Great Southern Highway, near Yarra, to the Federal Capital Territory; and the Monaro Highway (260 miles) from Tathra, on the coast, via Cooma and Tumut to Wagga.

The western highways are the Great Western (127½ miles) from Sydney to Bathurst; the Mid-western (610 miles approximately) from Bathurst through Cowra, Wyalong, Balranald, and Wentworth to the South Australian border near the southern corner of New South Wales; the North-western (432½ miles) from Bathurst via Orange, Trangie, Nyngan, and Bourke to Barrington on the Queensland border; and the Barrier Highway (about 394 miles) from Nyngan, via Cobar, Wilcannia, and Broken Hill to the South Australian border at Cockburn.

The principal northern roads are the Great Northern Highway (562 miles), traversing the coastal districts from North Sydney to Newcastle, Hexham and Maitland, thence along the tablelands through Glen Innes and Tenterfield to the Queensland border near Mount Lindesay; the North Coast Highway (483½ miles) from Hexham through the coastal towns to the Queensland border at Coolangatta. The Oxley Highway (395½ miles), branching from the North Coast Highway near Wauchope, connects it with the North-western at Trangie; and the Gwydir Highway (319½ miles) branches from the same road at South Grafton and runs westerly via Glen Innes and Moree to Mogil Mogil. A road 16 miles in length between Lansdowne and Hornsby connects the Great Southern and Great Northern Highways.

Bridges and Ferries.

Many of the earliest bridges erected in the State were built of stone, and are still in existence. Those erected in the period following the extension of settlement to the interior were principally of timber, and have been replaced after an average life of about twenty-five years. Nearly all the large bridges of recent date are of iron and steel and reinforced concrete, and some of them have been erected under difficult engineering conditions, owing to the peculiarity of the river flow in certain parts of the country. The municipal and

shire councils are empowered to control the bridges, with the exception of those classified as national works, which may be transferred by the Government at any time to the council. The most notable bridge-building project is the Sydney Harbour Bridge described below.

A wooden bridge across Middle Harbour at the Spit was built in 1924 by the Sydney Harbour Trust for the Manly Municipal Council. Tolls were levied to defray the cost until expenses had been paid in full, then the bridge was transferred to the Government, in 1930. Similar conditions apply to a bridge across George's River, which was constructed by the Sutherland Shire Council, and opened for traffic in May, 1929.

Where local conditions and limited traffic have not favoured the erection of a bridge, a punt or ferry has been introduced. The most important ferries which are worked otherwise than by hand have been proclaimed as national services. Prior to 1st December, 1907, it was the practice to charge a small fee for ferry transit; but on that date tolls were abolished, and public ferries became free.

On 1st January, 1907, the bridges of 20 feet span and over, including those in course of construction, numbered 3,575. Of these, 256 bridges, with an aggregate length of 101,416 feet, which, by reason of their cost, size, and extra-local importance, would constitute a strain on the resources of the local councils, were proclaimed as "national works," to be maintained by the Government.

The particulars of the bridges, culverts, and ferries of the State as at 30th June, 1927, are shown below:—

Classification.	Bridges over 20 feet span.		Culverts.		Ferries.
	Number.	Length.	Number.	Length.	Number.
National Works	288	ft. 108,295	...	ft. ...	18
Municipalities	645	39,014	4,483	256,296	38
Shires	3,943	243,477	35,489	355,653	173
Western Division (unincorporated)	96	13,495	489	5,972	6
Total	4,972	434,281	40,461	617,921	235

At 30th June, 1927, the national bridges were valued at approximately £3,500,000. The control of "national" bridges on main roads was transferred to the Main Roads Board on 30th June, 1929, and the ferries twelve months later, in the Eastern and Central Divisions of the State.

Sydney Harbour Bridge.

The largest arch bridge in the world is being constructed across Sydney Harbour between Dawes Point on the southern and Milson's Point on the northern side. The total length of the bridge, with railway and roadway approaches (the railway connecting with the City railway at Wynyard Station and with the northern suburban line at Waverton Station), is 2 miles 33 chains.

The main bridge consists of a steel arch span, 1,650 feet, flanked on either side by granite-faced concrete abutment towers and pylons, and by five steel approach spans. The width of the deck is 134 feet 11½ inches to carry a roadway, 57 feet wide, in the centre, with a pair of railway tracks

on each side, and a footway, 10 feet, on each extreme outside. The headway for shipping is 172½ feet at mean high water, and the highest part of the span is 437½ inches above mean sea level. The main arch is composed of silicon steel and the deck of carbon steel.

The main arch and steel approaches with a total length of 3,770 feet are being erected under contract, and the remainder of the approaches by the State Department of Public Works. In the contract section 41,000 tons of English steel and 10,000 tons of Australian steel will be used, 124,000 cubic yards of concrete, and 20,600 cubic yards of granite in the piers and abutment towers, 84,000 cubic feet of timber on the railway deck, and 10,050 yards of rails, 4,200 cubic yards of coke concrete and 32,300 yards of asphalt on the road and footways; also 140 tons of cast steel and 800 tons of steel reinforcing bars. In the other approaches there will be 6,600 tons of steelwork, 1,000 tons of steel reinforcing bars and 235,000 cubic yards of concrete.

The contract price for the main bridge and steel approaches is £4,217,721, plus such sum as may be required to pay increases in rates of wages. It has been estimated that the total cost of the bridge and approaches will be about £6,000,000. Two-thirds of the capital cost is to be debited to the Railway Commissioners, and one-third is to be paid by means of a special levy at the rate of ½d. in the £ of unimproved capital value of land in the city of Sydney, the municipalities of Manly, Mosman, Lane Cove, North Sydney, Willoughby, and Kuring-gai, the shire of Warringah, and part of the shire of Hornsby. The special levy in these areas in the seven calendar years 1923 to 1929 amounted to £1,094,755, including £190,849 in 1929. Up to 30th June, 1929, the amount of levy collected was £909,171, and a sum of £101,021 had been credited to the account as interest on the daily balance. The Government expenditure in connection with the bridge amounted to £4,815,131 as at 30th June, 1929, and of this sum £1,200,204 had been expended on resumptions and £969,779 on approaches.

Government Expenditure on Roads, Bridges, etc.

Although the main roads have been superseded largely by the railways, they are still the sole means of communication throughout a large part of the interior and serve as valuable feeders to the railway system. The following return shows the expenditure by the State Government and the Main Roads Board on works of a local character, such as roads, bridges, punts, ferries, public watering places, etc., in various years from 1906 to 1929:—

Year ended 30th June.	Expenditure from votes of Public Works Department.	Expenditure from Funds of Main Roads Board.	Endowments and Grants, to Councils from votes of Local Government Department.			Total Expenditure.
			Shires.	Municipali- ties.	Total.	
	£	£	£	£	£	£
1906	497,061	...	...	4,944	4,944	502,005
1916	114,011	...	353,043	62,457	415,505	529,516
1921	212,407	...	316,186	108,353	424,533	636,940
1926	321,785	1,385,888	255,465	9,654	265,119	1,972,792
1927	343,013	2,498,802	181,392	10,157	191,549	3,033,364
1928	361,023	3,090,074	246,790	17,124	263,914	3,715,011
1929	479,662	3,602,789	301,220	30,290	331,510	4,413,961

The moneys expended by the Main Roads Boards have not been provided wholly by the State Government, part of them being grants from the Government of the Commonwealth and contributions, etc., by the councils of the municipalities and shires, as shown on earlier pages of this chapter.

The expenditure in connection with the Sydney Harbour Bridge, amounting to £1,466,223 in the year 1928-29, is not included in the figures shown in the table. In addition there was a considerable amount of expenditure on roads, bridges, etc., by local government bodies and on streets by private individuals in preparing land for subdivisional sales.

POPULATION.

EARLY ENUMERATIONS.

THE growth of the population of New South Wales between 1788 and 1856 is traced on page 223 of the Official Year Book for 1922, and the area and population at each territorial readjustment are shown on page 1 of this issue.

The Census.

In the majority of countries a census enumeration is taken at intervals of ten years, but in some the interval has been reduced to five years.

The rapidity of modern progress and the increasing importance of watching the relative change of economic factors, combined with the difficulty of estimating approximately a population or its composition as regards sex, age, occupation, distribution, &c., at a date distant from that on which such facts were accurately known, have resulted in a movement for the adoption of the shorter interval.

It has been found that up to five years such estimates have been of much practical value, but after that period their value rapidly decreases.

For these reasons it is regrettable that it has been deemed advisable to postpone the next census of the Commonwealth from 1931 to 1933. The last census was taken in 1921.

With the exception of the territory ceded to the Commonwealth Government in 1911, New South Wales has occupied its present boundaries since 1859, and census particulars are available at regular decennial intervals since 1861. These particulars furnish a connected and accurate summary of the development of population since that date, and a survey of the growth of the total population of New South Wales, including Lord Howe Island, is shown in the following table:—

Year.	Population.	Index Number of Population.	Increase in Population since previous Census.			Number of Persons per Square Mile.
			Numerical.	Proportional.	Average Annual Rate.	
1861†	350,860	100	172,192*	per cent. 91.00	per cent. 6.98	1.12
1871†	503,981	144	153,121	43.64	3.69	1.61
1881†	751,468	214	247,487	49.11	4.08	2.41
1891†	1,132,234	323	380,766	50.67	4.19	3.64
1901†	1,359,133	387	226,899	20.04	1.84	4.38
1911†	1,648,746	470	289,613	21.31	1.95	5.32
1921†	2,101,968	599	453,222	27.49	2.46	6.79
1922†	2,174,553	619	72,585	3.45	1.96	7.03
1923†	2,211,106	630	109,138	5.19	1.86	7.15
1924†	2,256,090	643	154,122	7.33	1.90	7.30
1925†	2,300,081	656	198,113	9.42	1.91	7.43
1926†	2,349,401	669	247,433	11.77	1.95	7.59
1927†	2,401,884	684	299,916	14.27	2.00	7.76
1928†	2,446,874	697	344,906	16.41	1.98	7.91
1929†	2,479,147	707	377,179	17.94	1.90	8.01

* Since 1851.

† Census held at end of March or beginning of April.

‡ 31st December.

The annual rate of growth was 1.68 per cent. in 1923, 2.03 per cent. in 1924, 1.95 per cent. in 1925, 2.14 per cent. in 1926, 2.23 per cent. in 1927, 1.87 per cent. in 1928, and 1.32 per cent. in 1929.

*32233—A

Aboriginals are not included in the population shown above for 1861; the numbers included in the totals of subsequent years are 983 in 1871; 1,643 in 1881; 8,280 in 1891; 4,287 in 1901; 2,012 in 1911; 1,597 in 1921. In the population of years 1922 to 1929, 1,562 aboriginals are included. The population of the Federal Capital Territory is excluded in 1911 and subsequent years.

From this table it is apparent that a steady growth of population proceeded until 1891. This growth was especially marked between 1851 and 1861, when the gold discoveries were attracting eager fortune-hunters from other parts of the world, many of whom remained as settlers. After the gold rushes had ceased, the growth of population proceeded at a slower rate, but though neither the average annual rate of increase nor the proportionate increase of that period was again attained, the actual numerical expansion in later periods has been greater. Indeed, the lull which occurred in the growth of population during the sixties developed gradually into a period of increasingly rapid expansion after 1871, and the next twenty years were, from a relative point of view, a time of unexcelled development.

It is significant that this speedy development proceeded during a period of remarkably flourishing trade, and came to an end when the trade boom ended in the commercial crisis of the early nineties.

The next twenty years were a period of little progress in the development of population, the reasons being the commercial and industrial stagnation which followed the crisis of 1893, the migratory and other losses due to the war in South Africa, and the heavy decline in the birth-rate which lowered the rate of natural increase.

A new period of prosperity began early in the twentieth century, and the full weight of the trade revival was felt in the period 1911 to 1921, when the tide of population turned more definitely in favour of the growth of the State. Despite the serious effects of the Great War in diminishing the birth-rate, in temporarily stopping immigration, and in causing an exodus of men of reproductive ages, many of whom did not return, and despite the losses occasioned by the influenza epidemic of 1919, the period showed a greater relative expansion than either of its predecessors, and by far the greatest numerical increase on record. From 1921 to 1923 the volume of immigration was very restricted, and the increase in population depended mainly upon natural causes. Immigration increased, however, between 1924 and 1927, but the growth of population still depends mainly upon natural increase.

The estimated population at the end of the year and the mean population of New South Wales, including aboriginals, for the last eleven years were as follow:—

Year.	Estimated Population at End of Year.			Mean Population.
	Males.	Females.	Total.	
1919	1,042,959	996,764	2,039,723	2,000,573
1920	1,068,568	1,024,421	2,092,989	2,068,585
1921	1,085,275	1,044,230	2,129,505	2,108,369
1922	1,108,582	1,065,971	2,174,553	2,150,862
1923	1,128,089	1,083,017	2,211,106	2,192,146
1924	1,151,639	1,104,451	2,256,090	2,230,166
1925	1,172,470	1,127,611	2,300,081	2,275,886
1926	1,197,428	1,151,973	2,349,401	2,321,917
1927	1,224,847	1,177,037	2,401,884	2,374,264
1928	1,247,091	1,199,783	2,446,874	2,426,300
1929	1,261,970	1,217,177	2,479,147	2,464,510

Population of Australian States.

The following table shows the population of each State of the Commonwealth at the last two censuses, and at 31st December, 1929, also the proportion of population in each State. Aborigines of full blood are excluded from account.

State or Territory.	Population, Census 1911.	Population, Census 1921.	Estimated Population, 31st Dec., 1929.	Proportion in each State or Territory.		
				1911.	1921.	1929.
New South Wales ...	1,646,734	2,100,371	2,477,585	per cent. 36·96	per cent. 38·67	percent. 38·63
Victoria ...	1,315,551	1,531,280	1,777,065	29·53	28·19	27·70
Queensland ...	605,813	755,972	930,871	13·60	13·92	14·51
South Australia ...	408,558	495,160	580,271	9·17	9·13	9·05
Western Australia ...	282,114	332,732	416,763	6·33	6·06	6·50
Tasmania ...	191,211	213,780	219,066	4·29	3·91	3·41
Northern Territory ...	3,310	3,867	4,470	0·08	0·07	0·07
Federal Capital Terr....	1,714	2,572	8,282	0·04	0·05	0·13
Commonwealth ...	4,455,005	5,435,734	6,414,373	100·00	100·00	100·00

During the inter-censal period 1911 to 1921, the population of New South Wales increased at an average annual rate of 2·46 per cent., which was faster than that of any other State of the Commonwealth. The next highest rate was in Queensland, 2·24 per cent.; South Australia, 1·94 per cent.; Western Australia, 1·66 per cent.; Victoria, 1·53 per cent.; and Tasmania, 1·12 per cent. The average for the whole of Australia was 2·00 per cent.

Growth of Population of New South Wales.

The extent to which each source—natural increase and net immigration—has contributed to the growth of the population of New South Wales during each census period since 1861 was shown on page 226 of the Official Year Book for 1922. In calculating the increase from 1901 to 1921 the population of the Federal Capital Territory has been omitted, but the aboriginal inhabitants have been taken into consideration throughout.

The actual growth of population in New South Wales during each of the last eleven years was as follows:—

Year ended December—	Increase during Year.			Increase per cent. during Year.		
	Natural.	Net Immigration.	Total.	Natural.	Net Immigration.	Total.
1919	22,143	54,235	76,378	1·13	2·76	3·89
1920	33,013	20,253	53,266	1·62	·99	2·61
1921	34,600	1,916	36,516	1·65	·09	1·74
1922	36,036	9,012	45,048	1·69	·43	2·12
1923	33,061	3,492	36,553	1·52	·16	1·68
1924	32,849	12,135	44,984	1·48	·55	2·03
1925	33,792	10,199	43,991	1·50	·45	1·95
1926	30,938	18,382	49,320	1·34	·80	2·14
1927	31,088	21,395	52,483	1·32	·91	2·23
1928	32,106	12,884	44,990	1·34	·53	1·87
1929	28,057	4,216	32,273	1·15	·17	1·32

From 1917 to 1919 the return of troops caused an increasing flow of arrivals, and restored a temporarily absent element of population. In 1920 the last detachments of soldiers returned, and there was considerable immigration from other States. During 1921 migration returned to its

ordinary channels, and the net immigration of the year was inconsiderable. The annual gain by migration to the end of 1927 grew rapidly though irregularly and has since declined.

After 1914 the annual number of births diminished until 1919, and the natural increase showed a considerable falling off, especially in 1919, when the epidemic of influenza caused heavy mortality. In 1920 and 1921 the number both of births and deaths increased, but the increase of births was the greater. The natural increase in 1922 was numerically the greatest on record, but proportionately was considerably below that of former years. A slight decline both in numbers and proportion occurred between 1923 and 1925, while in 1926 a decrease in the number of births synchronised with an increase in the number of deaths and, excepting some of the war years, resulted in the lowest natural increase recorded for any year since 1911. Somewhat similar conditions have operated from 1927 to 1929 with regard to the birth and death rates, and the natural increase per cent. in the last year was only slightly higher than in 1919, and was lower than in other years covered by the table. Excluding the war period, the rate of increase in the population in 1929 was the lowest since 1901, in which year the departures exceeded the arrivals by over 10,000.

MIGRATION.

A very large movement of population takes place each year into and out of New South Wales, but is due more to the movement of tourists, businessmen, and persons following itinerant callings, than to immigration or emigration properly so-called. During the war period and the years immediately following there were very considerable movements of troops.

The net immigration is the excess of arrivals in New South Wales over departures from the State, and is the result principally of intercourse with overseas countries. In recent years until 1920 the greater part of the immigrants to New South Wales came from or through other Australian States; but, in 1921, with the virtual cessation of movement of troops, the direction of interstate migration changed and the number of departures to other States until 1927 exceeded the number of arrivals therefrom. During 1928 there was an appreciable falling off in the excess of arrivals, the total gain by migration being 12,884 as against 21,395 in 1927, while during 1929 the increase dropped to 4,216.

The interstate and overseas movement of people to and from New South Wales, as estimated for each of the past eleven years, is shown in the following table:—

Year	Arrivals in New South Wales.			Departures from New South Wales.			Excess of Arrivals over Departures.	
	Interstate. *	From other Countries Direct.	Total.	Interstate *	To other Countries Direct.	Total.	Interstate. *	Other Countries Direct.
1919	240,263	93,276	333,539	235,887	43,417	279,304	4,376	49,859
1920	311,068	72,515	383,583	303,222	60,108	363,330	7,846	12,407
1921	284,927	57,190	342,117	288,084	52,117	340,201	(-) 3,157	5,073
1922	277,938	53,326	331,264	283,432	38,820	322,252	(-) 5,494	14,506
1923	283,014	48,084	331,098	290,691	36,915	327,606	(-) 7,677	11,169
1924	300,816	55,066	355,882	304,095	39,652	343,747	(-) 3,279	15,414
1925	308,241	55,201	363,442	311,035	42,208	353,243	(-) 2,794	12,993
1926	288,354	62,395	350,749	288,793	43,574	332,367	(-) 439	18,821
1927	244,456	65,485	309,941	242,541	46,005	288,546	1,915	19,480
1928	231,523	60,786	292,309	230,885	48,540	279,425	638	12,246
1929	211,940	52,406	264,346	211,356	48,774	260,130	584	3,632

(—) Denotes excess of departures.

* Including movement of population to and from overseas countries via other States.

Oversea Migration.

Since the middle of 1924 statistics have been collected as to the residential intentions of persons arriving and departing overseas in each of the Australian States. These distinguish between persons migrating for permanent settlement, Australians travelling abroad, and visitors from other countries. The following summary shows the numbers in the various categories in the years 1928 and 1929, comparing the totals for New South Wales with those for all Australia. Owing to the difficulty of securing accurate records at all coastal points the recorded totals are not the actual numbers, and a small addition is made to the number of departures in order to adjust the balance:—

Heading.	1928.		1929.	
	New South Wales.	Commonwealth.	New South Wales.	Commonwealth.
Arrivals—				
Immigrants	21,583	48,233	14,475	31,698
Australians returning ...	16,445	24,834	17,035	25,852
Visitors	22,758	26,721	20,891	24,892
Not stated ... ..	...	4	5	6
Total	60,786	99,792	52,406	82,248
*Departures—				
Emigrants	10,194	20,110	11,604	22,445
Australians who intend to return	15,757	24,704	15,508	25,125
Visitors	22,581	27,731	21,661	25,708
Not stated	8	15	1	7
Total	48,540	72,560	48,774	73,285

* Approximate only, includes allowance for unrecorded departures.

Immigrants in the above table are described as persons arriving from overseas intending to reside permanently in Australia, and "emigrants" as Australian citizens departing with the intention of residing permanently in some other country. It is noteworthy that the particulars for New South Wales relate to persons arriving from overseas at New South Wales ports irrespective of which State is their ultimate destination.

The majority of travellers between Australia and other countries embark or disembark at ports in New South Wales, and this is particularly noticeable in respect of visitors from abroad.

Nationality of Oversea Migrants.

Since the middle of 1924, the nationality of oversea migrants has been recorded, and the following table shows the numbers of each of the principal nationalities arriving in or departing from Australia *via* the ports of New South Wales in 1927, 1928, and 1929.

Nationality.	1927.			1928.			1929.		
	Arrivals.	Departures.	Excess of Arrivals.*	Arrivals.	Departures.	Excess of Arrivals.*	Arrivals.	Departures.	Excess of Arrivals.*
British	54,088	38,418	15,670	50,897	41,079	9,818	44,717	41,354	3,363
French	620	640	(-) 20	568	562	6	500	563	(-) 63
German	435	221	214	397	293	104	294	300	(-) 6
Italian... ..	1,955	405	1,550	1,050	470	580	727	562	165
Jugo Slavs	487	286	201	309	229	80	210	246	(-) 36
Russians	142	69	73	165	92	73	67	94	(-) 27
United States	1,743	1,577	166	1,886	1,713	173	1,674	1,548	126
Other European	2,381	806	1,575	1,951	945	1,006	1,129	1,061	68
Total, European	61,851	42,422	19,429	57,223	45,383	11,840	49,318	45,728	3,590
Chinese	2,664	2,962	(-) 298	2,514	2,482	32	2,195	2,310	(-) 115
Indians	446	299	147	483	271	212	501	382	119
Japanese	137	157	(-) 20	156	136	20	117	124	(-) 7
Syrians	150	22	128	97	28	69	32	28	4
Other Asiatic	98	31	67	91	93	(-) 2	59	57	2
Pacific Islanders	123	106	17	187	132	55	141	136	5
Other Non-Europeans	16	6	10	35	15	20	43	9	34
Total, Non-European	3,634	3,583	51	3,563	3,157	406	3,088	3,046	42
Grand Total	65,485	46,005	19,480	60,786	48,540	12,246	52,406	48,774	3,632

* (—) Denotes excess of departures.

The numbers in the above table embrace migrants arriving or departing, visitors from oversea, and Australian residents travelling abroad. An adjustment for unrecorded departures has been made, as explained on the preceding page.

Passports.

Under the Passports Act, 1920 (Federal), no person who is or appears to be more than 16 years of age may embark at any place in the Commonwealth for a journey to any place beyond the Commonwealth unless he is the holder of a passport or other document authorising his departure, properly endorsed for the journey, or unless he is the subject of any special or statutory exemption in that regard. The fee for issuing a passport is 10s., and it is valid for a period of five years unless specially limited to a shorter period.

The statutory exemptions extend to members of the naval or military forces of any British Dominion on duty, members of the crew of a departing vessel who were members on its arrival or are by occupation seafaring men, any natural born British subject proceeding to New Zealand, any other person proceeding to New Zealand under permit, any officer of the Administration, or any *bona fide* resident or tourist with a return ticket proceeding to Papua or Norfolk Island, any person holding a certificate exempting him from the dictation test, and any aboriginal native of Asia or of any island of the East Indies or of the Indian or Pacific oceans.

Immigration.

At Common Law aliens have no legal right of admission to any British country, and immigration to and emigration from New South Wales are regulated principally by statutes of the Federal Parliament, *e.g.*, the Immigration Act (1901-25) and the Contract Immigrants Act, 1905.

Any person may be refused admission to Australia who fails to write from dictation by an officer not less than fifty words in any prescribed European language; or any person who has not the prescribed certificate of health; any feeble-minded person; any person suffering from serious transmissible disease or defect, tuberculosis or certain other serious diseases; any person convicted of crime in certain circumstances; any prostitute or person living by prostitution; any advocate of revolution, assassination, or the unlawful destruction of property; any Turk of Ottoman race; or any person 16 years of age or over not possessed of a passport as prescribed. Should such persons gain admission, they may be deported. Usually persons formerly domiciled in the State cannot be excluded from return after temporary absence. For a period of five years from 2nd December, 1920, persons of German, Austro-German, Bulgarian or Hungarian parentage and nationality were excluded, but upon the expiration of that period no further restrictions were imposed. Ex-enemy subjects repatriated during the late war are required to obtain approval of their readmission.

Assisted Immigration.

An agreement to operate for three years from 1st May, 1925, was reached under the Empire Settlement (Imperial) Act, 1922, between the Imperial and Federal Governments, to grant in equal shares a subsidy for payment of passage money of each approved migrant. The amount of subsidy in particular cases is shown on a later page.

Approved migrants are those nominated by relatives or friends in Australia and accepted by the Director of Australian Migration and Settlement in London, and persons (usually rural or household workers) selected from among applicants for assisted passages annually by the Director. The latter are introduced on the responsibility of the State. The age limit for women applicants for assisted passages as household workers is 40 years.

In certain cases migrants receive instruction in rural work on the Government Agricultural Farm at Scheyville (near Windsor), and suitable employment is obtained in co-operation with the State Labour Exchanges. Any migrant who settles upon the land as owner, lessee, or labourer, within a reasonable time of his arrival, may be granted concessions in regard to railway fares and freight when travelling to the district in which he settles. These concessions may be granted also to nominated migrants proceeding to the homes of their nominators, or travelling to take up farm work or household service.

Particulars of the earlier history of assisted migration will be found in previous issues of the Year Book.

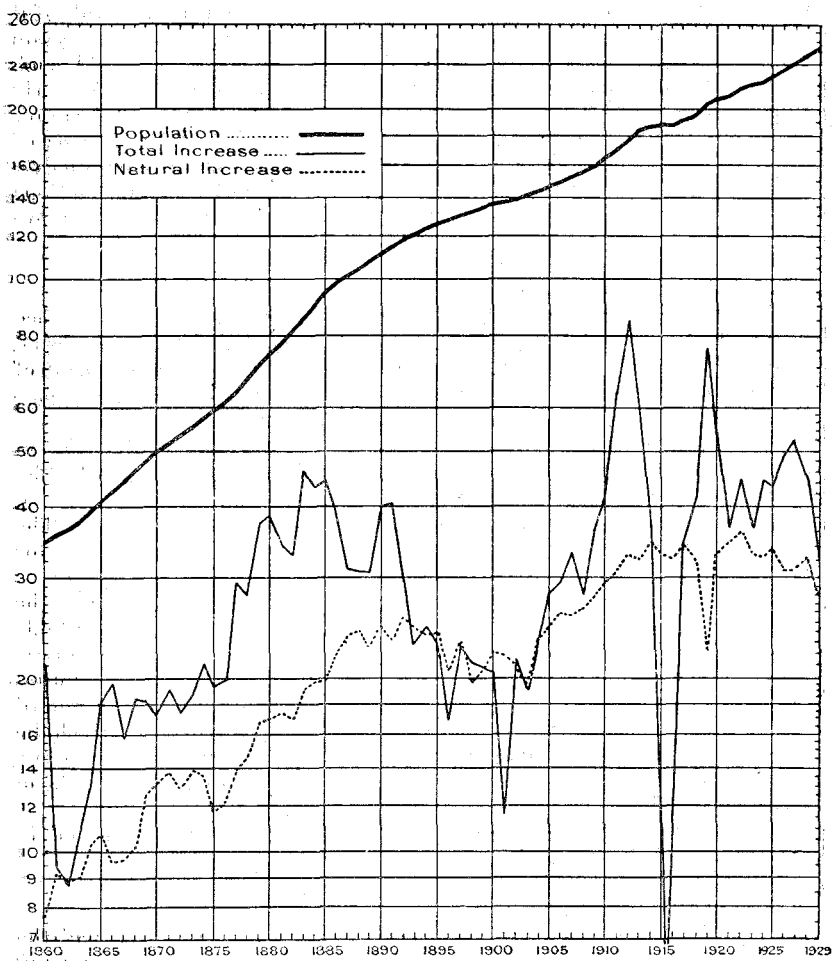
Numbers of Assisted Immigrants.

The following table shows particulars of the manner of choosing and the age and sex of assisted migrants who arrived in New South Wales during each of the last seven calendar years:—

Year.	Selected.	Nominated.	Adults and Children over 12 years of age.		Children under 12 years of age.		Grand Total.
			M.	F.	M.	F.	
1923	984	4,058	2,134	1,841	527	540	5,042
1924	1,499	4,714	2,575	2,334	660	644	6,213
1925	2,239	6,548	3,812	2,993	1,030	952	8,787
1926	1,572	11,257	5,082	4,539	1,633	1,575	12,829
1927	1,542	8,718	3,593	4,174	1,268	1,225	10,260
1928	1,628	7,104	3,190	3,726	940	876	8,732
1929	1,008	4,418	2,004	2,342	563	517	5,426

POPULATION AND ANNUAL INCREASE, 1860 TO 1929.

Ratio Graph.



NOTE.—(i) The numbers at the side of the graph represent 10,000 of population, 1,000 Total Increase and 1,000 Natural Increase.

(ii) In 1916 there was a decrease of 8,711 in the population owing to the departure of troops and the curve fell below the limits of the graph.

The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the percentage of increase or decrease. Actual numbers are shown by means of the numbers at the side of the graph.

The following statement shows the migration to the State since 1832, and the total number of assisted migrants who arrived in New South Wales under various schemes, inclusive of Victoria and Queensland before

their separation. After 1905 the number of migrants nominated by residents of the State and the number selected abroad are shown separately.

Period.	Immigrants assisted.				
	Nominated.	Selected.	Total Arrivals.		
			Males.	Females.	Total.
1832-1905 § ...	...	...	104,106	107,866	211,972
1905-1909 § ...	6,144	2,713	*	*	8,857
1910-1914 § ...	32,406	12,444	23,816	21,034	44,850
1915-1919 § ...	4,123	1,322	2,067	3,378	5,445
1920-1924** ...	22,214	4,384	13,927	12,671	26,598
1925 ...	6,548	2,239	4,842	3,945	8,787
1926 ...	11,257	1,572	6,715	6,114	12,829
1927 ...	8,718	1,542	4,861	5,399	10,260
1928 ...	7,104	1,628	4,130	4,602	8,732
1929 ...	4,418	1,008	2,567	2,859	5,426
1832-1929 ...	102,932†	28,852†	167,031†	167,868†	343,756

* Information not available.
§ To 30th June.

† Excluding immigrants, 1905-1909.

‡ 1905 to 1928.

** 5½ years ended 31st December, 1924.

There was a revival in this class of migration in 1926, but the last three years show a downward tendency. This was the result of the increasing difficulty in securing employment in various callings. In October, 1927, the State Government decided to restrict nominations to such classes as were not likely to disturb the labour market, and this system has been operating since that date, and was applied more vigorously as the industrial situation became more acute.

Since 1861 the number of assisted migrants has been approximately 28 per cent. of the net number of migrants to the State, and between the censuses of 1911 and 1921 the net migration was 134,692 persons, or approximately three times the number assisted by the Government.

Occupations of Assisted Migrants.

The following statement shows the distribution of assisted migrants in their respective occupational classes in each of the last five years:—

Classification of Occupations.	1925.		1926.		1927.		1928.		1929.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Manufacture of—										
Wood products ...	36	...	82	...	59	...	30	1	11	...
Metal, Engineering, &c. ...	339	...	689	...	420	...	335	1	134	...
Food, Drink, &c. ...	38	5	51	1	42	28	63	14	53	10
Clothing, &c. ...	68	98	82	160	78	84	49	129	37	89
Books, Printing, &c. ...	16	5	17	8	19	13	20	7	8	5
Other Manufactures ...	36	13	61	7	31	4	21	14	6	9
Building Industry ...	98	...	151	...	142	...	178	...	101	...
Mining Industry ...	397	...	824	...	190	...	122	...	63	...
Rail and Tram Transport ...	30	...	56	...	30	...	22	...	16	...
Other Land Transport ...	65	1	81	1	76	...	50	...	33	...
Shipping and Wharf Labouring ...	31	...	26	...	16	...	12	...	11	...
Rural Industries... ..	1,855	...	1,554	2	1,325	...	1,432	1	970	...
Domestic and Hotel Workers ...	13	814	20	1,143	11	1,422	8	1,440	3	1,013
Other trades ...	382	119	750	188	581	171	401	186	290	146
Dependents—										
Over 12 years of age ...	408	1,938	638	3,029	574	2,452	447	1,933	268	1,076
Under 12 years of age ...	1,030	952	1,633	1,575	1,268	1,225	940	876	563	517
Total each sex ...	4,842	3,945	6,715	6,114	4,861	5,399	4,130	4,602	2,567	2,859
Grand Total ...	8,787		12,829		10,260		8,732		5,426	

Latterly selected migrants have been mainly rural workers and household servants. Nominated migrants have been distributed over many trades, but more especially those of the rural and mining industries, and engineering, and the manufacture of metals.

Country of Origin of Assisted Migrants.

Nearly all the assisted migrants in the last seven years have come from the United Kingdom; the relatively small number from other countries is shown in the following statement:—

Year ended 31st Dec.	Assisted Migrants from—						Total Assisted Migrants.		
	United Kingdom.		Other British Possessions.		Foreign Countries.		Nomin-ated.	Selected.	Total.
	Nomin-ated.	Selected.	Nomin-ated.	Selected.	Nomin-ated.	Selected.			
1923	4,005	984	8	...	45	...	4,058	984	5,042
1924	4,614	1,499	25	...	75	...	4,714	1,499	6,213
1925	6,425	2,239	56	...	67	...	6,548	2,239	8,787
1926	11,089	1,572	148	...	20	...	11,257	1,572	12,829
1927	8,533	1,542	183	...	2	...	8,718	1,542	10,260
1928	6,988	1,628	116	...	...	...	7,104	1,628	8,732
1929	4,384	1,008	34	...	...	...	4,418	1,008	5,426

Adolescent Migrants.

There are a number of private organisations which assist the immigration of young persons, including the Dreadnought Fund Trust, the Dr. Barnardo Homes, the Salvation Army, and the Catholic Immigration League.

The Dreadnought Fund was established in 1909 by public subscription to defray the cost of building for the Imperial Navy a war vessel of the Dreadnought type. On the institution of the Australian Navy it was decided to use part of the funds to assist the immigration of lads from 17 to 20 years of age, for the purpose of following rural pursuits. Under this scheme 63 boys were brought to New South Wales in 1921, 637 in 1922, 472 in 1923, 620 in 1924, 1,016 in 1925, 1,019 in 1926, 865 in 1927, 671 in 1928, and 379 in 1929.

The local organisation known as Dr. Barnardo Homes works in conjunction with an English institution of that name, which arranges passages and pays the passage money to Australia of boys trained in their homes and on farms in England. The local organisation places the boys with farmers, where the home conditions are found to be satisfactory. From October, 1921, when the first of these boys were landed in Sydney, to December, 1922, 97 Barnardo boys had arrived in New South Wales. During 1923 a further 123 arrived, 51 in 1924, 88 in 1925, 50 in 1926, 48 in 1927, 48 in 1928, and 75 in 1929. The State also received 32 Barnardo girls in 1923, 101 in 1924, 42 in 1925, 48 in 1926, 38 in 1927, 43 in 1928, and 56 in 1929.

During 1923 an additional scheme was inaugurated under which 251 British farm lads, between the ages of 15 and 18 years, were received upon assisted passages and provided with rural employment in New South Wales, whilst 305 arrived in 1924, 75 in 1925, 314 in 1928, and 153 in 1929. In 1929 there arrived also 30 Salvation Army lads, 75 Salvation Army girl domestics, 36 Wembley lads, and 167 Little Brothers.

The Juvenile Migrants Act passed in 1926 provides for the reception of juvenile migrants between the ages of 14 and 18 years on their signing an undertaking to remain under the control of the Minister for Labour and Industry while in New South Wales, until attaining the age of 18 years. The Minister is empowered by the Act to place such migrants for training and employment on a Government training farm or with any fit and proper person. Such migrants are not indentured, and have power to terminate their employment, provided notification of such termination is supplied to the Minister.

Passage Money for Assisted Migrants.

Prior to the war several steamship companies conveyed migrants from the United Kingdom at very low rates, the State Governments contributing a portion. Since the war the cost per berth has increased, and since 1st May, 1925, under the Imperial scheme, contributions have been made in equal proportions by the Federal and Imperial Governments towards the cost of assisted passages for approved persons from the United Kingdom. Contributions are on the following scale:—

	Government Subsidy.	Paid by Migrant.
	£ s. d.	£ s. d.
Children over 3 and under 12 years ..	16 10 0	Nil.
Juveniles over 12 and under 17 years ..	27 10 0	5 10 0
Juveniles over 17 and under 19 years ..	22 0 0	11 0 0
Household workers	33 0 0	Nil.
Married couples, including husbands and wives, widows, and widowers, hav- ing one or more children under 19 years, each	22 0 0	11 0 0
Other approved immigrants	16 10 0	16 10 0

One child under 3 years of age in each family is carried free.

In the case of persons nominated for assisted passages by relatives or friends in the State, nominators are required to guarantee that employment awaits nominees, or that adequate provision will be made for their maintenance.

Contract Immigrants.

The admission of immigrants under contract to perform manual labour is regulated by the Contract Immigrants Act, 1905. Such contracts must be made by or on behalf of an Australian resident on the one part. In every case they are subject to Ministerial approval which may be withheld if the fulfilment of the contract is likely to prejudice the public welfare as affecting an industrial dispute or the conditions or standards prevailing in local industry. Except in the cases of contract migrants who are British subjects born in the United Kingdom or descended from a British subject there born, it must be shown that there is difficulty in obtaining workers of equal skill and ability within the Commonwealth. The Act, however, does not apply to domestic servants and personal attendants accompanying their employers.

New Settlers' League.

Although originally operating under the auspices of the Commonwealth Government, this organisation has been subsidised for some years jointly by the Commonwealth and State Governments to the extent of £1,500 per annum.

DISTRIBUTION OF POPULATION.

The population of New South Wales is distributed in a rather remarkable manner. At 31st December, 1929, including shipping, the city of Sydney contained 109,000 persons in a small area surrounded by an extensive group of suburbs with 1,129,660 inhabitants, making a total of 1,238,660 dwellers in the metropolis. Outside the boundaries of the metropolis in what is termed the extra metropolitan area there are two municipalities and three shires, containing in all 56,180 inhabitants. Then scattered throughout the State are 132 municipalities, with a total population of 526,980; of these, 11 municipalities in the County of Cumberland contained 49,000 persons, and the four large mining centres of Newcastle, Broken Hill, Lithgow, and Wollongong, with 153,670 inhabitants, leaving 324,310 in 117 of the larger rural towns incorporated as municipalities. Distributed over the remainder of the State—99 per cent. of its area—are 657,215 persons; of whom a small number live in the unincorporated towns, and only 14,645 in the unincorporated portion of the Western Division, which covers 40.5 per cent. of the area of the State.

The tendency of migrants to remain in the capital city was shown by the fact that, whereas 97,344 males and 81,145 females born outside Australia were resident in the metropolis, the numbers in other parts of the State were 83,150 females and 53,091 females at the census of 1921.

The distribution of population at 31st December, 1929, together with the proportion in each division and the average population per square mile, are shown in the following table:—

Division.	Area (including Harbours, Rivers and Lakes).	Population at 31st December, 1929, including shipping and aboriginals.		
		Total.	Proportion in each Division.	
	sq. miles.		per cent.	per sq. mile.
Sydney	5	109,000	4.4	21,800.0
Suburbs of Sydney	262	1,129,660	45.5	4,300.2
Metropolis	267	1,238,660	49.9	4,639.2
Extra Metropolitan Area	451	56,180	2.3	124.6
Total	718	1,294,840	52.2	1,803.4
Country Municipalities	2,301	526,980	21.3	229.0
Country Shires	181,099†	642,570	25.9	3.5
Western Division (Part unincorporated)	125,309	14,645	0.6	0.1
Lord Howe Island	5	112	0.0	22.4
Total, New South Wales	309,432†	2,479,147	100.0	8.01

† Excludes Federal Territory, 940 sq. miles.

The population of the metropolitan area as defined in the Local Government Act represents one-half of the total population; one-fifth of the people reside in the country municipalities, and less than one-third in the remaining rural districts.

The density of population diminishes rapidly from city, suburban, country urban to rural districts. The average density of population in New South Wales, though low, is greater than that of any other State of the Commonwealth except Victoria and Tasmania.

The low average in New South Wales—8.01 per square mile—is due largely to the inclusion of the extensive and practically unpeopled Western Division, much of which must remain sparsely settled until means are found to overcome its natural disability of a low average rainfall. The average density of population in the Eastern and Central Divisions of the State is 13.4 persons per square mile.

Municipal and Shire Population.

Slightly more than two-thirds of the population of New South Wales live within the municipalities and practically the whole of the remainder within shires. Although the area unincorporated is more than two-fifths of the total it contains less than 15,000 inhabitants. The number of inhabitants of municipalities, shires, and unincorporated districts of each division of New South Wales at 31st December, 1929, is shown below:—

Division.	Municipalities.	Shires.	Total.
Metropolis	1,238,660	...	1,238,660
Balance—Cumberland	56,660	68,310	124,970
North Coast... ..	36,120	88,990	125,110
Hunter and Manning	149,830	132,160	281,990
South Coast	50,610	43,760	94,370
Northern Tableland	22,160	30,430	52,590
Central Tableland	60,460	71,630	132,090
Southern Tableland	22,360	25,520	47,880
North-Western Slope	18,000	35,780	53,780
Central-Western Slope	20,620	36,640	57,260
South-Western Slope	40,730	62,820	103,550
North-Central Plain	7,510	18,590	26,100
Central Plain	7,010	15,480	22,490
Riverina	13,290	60,980	74,270
Western Division—			
Incorporated	29,280	...	29,280
Unincorporated ... ..	...	...	14,645
Lord Howe Island ... ..	...	...	112
New South Wales	1,773,300	691,090	2,479,147

Particulars of the area, population, and number of dwellings in each municipality and shire of the census of 1921 are shown at pages 6 to 17 of the Statistical Register for 1924-25.

Urban and Rural Population.

The population of New South Wales, in common with that of most other countries of the world, tends more and more to congregate in metropolitan and urban centres. A comparison of the number and proportion of inhabitants in metropolitan, urban, and rural divisions from 1891 to 1921 was published on page 235 of the Official Year Book for 1922.

The outstanding features of the population at the present time are the dominance of the metropolitan element and the diminishing relative importance of the country towns, incorporated and unincorporated, and of the rural districts.

Internal Migration.

Tables published on page 236 of the Official Year Book for 1922 show that there was considerable migration from the country districts to the city during the last three inter-censal periods.

Throughout the period the flow of population was continuous from the South Coast, from the whole of the Tableland Divisions, and from the Western Division. During the period 1911 to 1921 emigration from country divisions was more pronounced than ever before, and occurred from every rural district of the State considered in a general way, except where special settlement was brought about by the Murrumbidgee Irrigation project.

The Population of the Metropolis.

Up to 31st December, 1928, the metropolis was taken to include the City of Sydney, forty municipalities, the Ku-ring-gai Shire, and the islands of Port Jackson, embracing an area of 181 square miles. It has been decided, however, to include in the metropolitan area from 1st January, 1929, the municipalities of Auburn, Bankstown, Lidcombe, Granville, and Parramatta. The new boundaries of the metropolis may be described as follow:—On the east the sea coast, on the south the waters of Botany Bay and George's River; on the west the western boundaries of Bankstown, Granville, Parramatta, Ryde, Eastwood, and Ku-ring-gai municipalities; on the north, the eastern boundary of Ku-ring-gai, the north-eastern boundary of Willoughby, and the northern boundary of Manly municipalities. The area embraced by the new boundaries is 267 square miles.

The following statement shows the population of each municipality of the metropolis at the censuses of 1911 and 1921, and at 31st December, 1929, including aboriginals and shipping:—

Municipality.	Population.			Municipality.	Population.		
	Census, 1911.	Census, 1921.	31st Dec., 1929.		Census, 1911	Census, 1921.	31st Dec., 1929.
City of Sydney ...	119,774	111,059	109,000	Lane Cove ...	3,306	7,592	14,660
Alexandria ...	10,123	9,793	10,320	Leichhardt ...	24,254	29,356	31,350
Annandale ...	11,241	12,648	13,090	Lidcombe ...	5,419	10,524	15,490
Ashfield ...	20,431	33,637	39,580	Manly ...	10,465	18,507	25,860
Auburn ...	5,559	13,563	19,690	Marrickville ...	30,653	42,240	46,400
Balmain ...	32,038	32,122	33,090	Mascot ...	5,836	10,929	13,620
Bankstown ...	2,039	10,670	21,630	Mosman ...	13,243	20,063	24,770
Bexley ...	6,517	14,746	20,120	Newtown ...	26,498	28,169	28,600
Botany ...	4,409	6,214	7,770	North Sydney ...	34,648	48,446	54,750
Burwood ...	9,382	15,711	19,340	Paddington ...	24,317	26,364	27,010
Canterbury ...	11,335	37,639	72,300	Parramatta ...	12,476	14,595	17,480
Concord ...	4,076	11,013	22,160	Petersham ...	21,712	26,236	28,090
Darlington ...	3,816	3,651	3,600	Randwick ...	19,475	50,849	73,200
Drummoyne ...	8,678	18,764	28,950	Redfern ...	24,427	23,978	24,140
Eastwood ...	968	2,133	2,920	Rockdale ...	14,095	25,190	36,990
Enfield ...	3,444	8,530	13,880	Ryde ...	5,281	14,855	25,160
Erskineville ...	7,299	7,553	7,610	St. Peter's ...	8,410	12,700	13,870
Glebe ...	21,944	22,772	23,100	Strathfield ...	4,046	7,594	12,020
Granville ...	7,231	13,328	18,970	Vaucluse ...	1,673	3,730	7,190
Homebush ...	676	1,622	3,160	Waterloo ...	10,072	11,199	12,770
Hunter's Hill ...	5,019	7,334	9,590	Waverley ...	19,832	36,797	52,030
Hurstville ...	6,533	13,394	21,110	Willoughby ...	13,037	28,074	41,770
Kogarah ...	6,954	18,226	28,880	Woollahra ...	16,992	25,461	34,060
Ku-ring-gai ...	9,459	19,213	27,460				
				Total ..	669,112	968,783	1,238,660

Some of the suburbs nearest the city have attained their maximum development as residential districts and some are even losing population as industrial and commercial establishments extend. The rate of growth of population is now greatest in the more remote municipalities, such as Auburn, Bankstown, Bexley, Canterbury, Concord, Hurstville, Kogarah, Lane Cove, and Ryde.

In addition to the suburbs enumerated above there are in close proximity to the city, a number of important centres of population of a more or less suburban character, since a large proportion of their inhabitants gain their livelihood in the city. A definition of an extended metropolitan area was given in the Local Government Act of 1919 (Schedule Four). It includes the following additional localities, whose populations, including aboriginals and shipping, are shown:—

Locality.	Population.		
	Census, 1911.	Census, 1921.	31st Dec., 1929.
Municipalities—			
Dundas	1,136	3,523	5,500
Ermington and Rydalmere	1,716	1,981	2,160
Shires—			
Hornsby	8,907	15,291	20,610
Sutherland	2,896	7,707	12,670
Warringah	2,823	9,644	15,240
Total Extra-Metropolitan Area	17,478	38,146	56,180
Population of Metropolis as shown above...	669,112	968,783	1,238,660
Metropolitan Area as defined in Local Government Act	686,590	1,006,929	1,294,840

The population of the metropolis, including aboriginals and shipping, at census periods and at the end of each year since 1925 is shown in the following table, together with the proportion which the metropolitan population bears to that of the whole State:—

Year.	Population.			Increase during Interval.		Males per cent.	Proportion of Population of State in Metropolis.
	Males.	Females.	Total.	Numerical.	Per cent.		
1861	47,778	49,283	97,061	43,137*	80·00*	49·21	per cent. 27·7
1871	68,266	70,913	139,179	42,118	43·39	49·05	27·6
1881	114,936	112,230	227,166	87,987	63·22	50·60	30·2
1891	197,550	189,884	387,434	160,268	70·55	50·99	34·2
1901	241,700	246,232	487,932	100,498	25·94	49·54	35·9
1911	312,074	324,279	636,353	148,421	30·42	49·04	38·5
1921	439,691	466,412	906,103	269,750	42·34	48·54	43·1
1925	508,790	530,600	1,039,390	133,287	14·71	48·95	45·2
1926	525,225	545,285	1,070,510	31,120	3·00	49·06	45·5
1927	541,840	559,350	1,101,190	30,680	2·87	49·20	45·8
1928	555,350	572,120	1,127,470	26,280	2·39	49·26	46·1
1929†	610,570	628,090	1,238,660	20,950	1·72	49·29	50·0

*Since 1851.

†Area extended as from 1st January, 1929.

In calculating the numerical increase and the increase per cent. in 1929 over 1928 in the above table, the municipalities of Auburn, Bankstown, Granville, Lidcombe, and Parramatta, which have been included in the metropolitan areas, were taken into consideration.

The proportion of the population of the State resident in the metropolis has increased rapidly in the past half-century and especially in the last fifteen years. The apparently large increase in 1928, however, is due to the inclusion of the five municipalities mentioned above. Since 1891 the proportion of females in the metropolis has increased, so that at the census of 1921 there was an excess of three females in every hundred of the population.

The population of the capital cities (including suburbs) of the States of the Commonwealth is shown below:—

Metropolis.	Census, 1911.*	Census, 1921.*	31st December, 1929†				Proportion to Population of Whole State.
			Males.	Females.	Total.		
						per cent.	
Sydney‡	669,112	968,783	610,570	628,090	1,238,660	50·0	
Melbourne	588,971	766,465	481,200	537,000	1,018,200	57·3	
Adelaide	189,646	255,375	158,492	166,406	324,898	56·0	
Brisbane	139,480	209,946	153,349	165,282	318,631	34·2	
Perth	106,792	154,873	102,714	100,174	202,888	48·7	
Hobart	39,937	52,361	...	...	57,500	26·2	

* Excluding Shipping. † Including Shipping. ‡ New Boundaries.

THE TOWNS OF NEW SOUTH WALES.

As might be expected from the nature of the industries of the State there are in New South Wales comparatively few large towns. Outside the metropolitan area, the only towns of outstanding importance are Newcastle and Broken Hill, and the existence of both is due to the rich mineral deposits in their neighbourhood. Lithgow, the third, and Cessnock, the fourth, largest towns outside County Cumberland, are also dependent on mining. Apart from these and the centres in the County of Cumberland dependent upon the city, there are only five country municipal towns with a population exceeding 10,000; eleven, including one unincorporated, between 5,000 and 10,000; and twenty-one, including one unincorporated, between 3,000 and 5,000.

The following table affords a comparison of the populations at the last four censuses and at the end of the years 1928 and 1929 of the towns which at the end of 1929 had more than 3,000 inhabitants, including aboriginals

and shipping, the metropolitan and closely dependent municipalities being shown first, the order being the numerical importance in 1921.

Municipality.	Population.					
	Census 1891.	Census 1901.	Census 1911.	Census 1921.	31st Dec., 1928 (estimated).	31st Dec., 1929 (estimated).
Sydney and Suburbs* ...	387,331	487,900	636,388	906,103	1,127,470	
Parramatta* ...	11,677	12,560	12,476	14,595	17,150	
Auburn*† ...	2,026	2,948	5,559	13,563	19,240	
Granville* ...	4,248	5,094	7,231	13,328	18,390	1,238,660
Bankstown*† ...	108	1,246	2,039	10,670	20,470	
Lidcombe† ...	2,084	4,496	5,419	10,524	14,990	
Dundas* ...	881	1,087	1,136	3,523	5,270	5,500
Newcastle and Suburbs ...	50,662	54,991	55,380	86,267	103,180	104,640
Broken Hill ...	19,789	27,500	30,974	26,338	23,260	23,480
Lithgow ...	3,865	5,268	8,196	13,275	15,170	15,320
Goulburn ...	10,916	10,612	10,023	12,934	12,690	12,740
Maitland ...	10,214	10,073	11,318	12,009	11,780	11,790
Bathurst ...	9,162	9,223	8,578	9,441	9,160	9,510
Katoomba ...	1,592	2,270	4,924	9,057	10,250	10,100
Lismore ...	2,925	4,464	7,382	8,712	9,540	10,050
Albury ...	5,447	5,821	6,309	7,752	9,250	9,580
Wagga Wagga ...	4,596	5,108	6,419	7,679	8,930	9,030
Orange ...	5,064	6,331	6,722	7,398	8,470	8,610
Cessnock† ...	203	165	3,957	7,343	14,190	14,120
Tamworth ...	4,602	5,799	7,147	7,264	7,560	7,890
Wollongong ...	3,058	3,554	4,673	6,708	8,950	10,230
Kurri Kurri§ ...	...	...	4,154	5,542	7,166	7,030
Armidale ...	3,826	4,249	4,739	5,486	6,020	7,270
Dubbo ...	3,551	3,469	4,455	5,032	5,680	5,920
Glen Innes ...	2,532	2,918	4,089	4,974	4,630	4,680
Grafton ...	3,618	4,173	4,685	4,609	4,790	5,110
Forbes ...	3,011	4,294	4,436	4,376	4,880	4,970
Inverell ...	2,534	3,293	4,549	4,369	4,580	5,350
Parkes ...	2,449	3,181	2,935	3,941	5,680	5,830
Wellington ...	1,545	2,984	3,958	3,924	3,380	3,370
Windsor* ...	2,033	2,039	3,466	3,808	3,170	3,310
Cowra ...	1,546	1,811	3,292	3,732	4,470	4,450
Kempsey ...	2,194	2,329	2,947	3,613	3,610	3,630
Penrith* ...	3,099	3,539	3,683	3,605	3,880	4,010
Junee ...	1,682	2,190	2,531	3,560	3,810	3,090
Cootamundra ...	2,026	2,424	2,967	3,531	4,080	4,190
Casino ...	1,486	1,926	3,429	3,461	3,430	3,260
Young ...	2,746	2,755	3,140	3,284	3,600	3,620
Singleton ...	2,595	2,872	2,999	3,275	3,380	3,400
Mudgee ...	2,410	2,789	2,942	3,170	3,060	3,070
Temora ...	915	1,603	3,784	3,049	3,460	3,240
Moree ...	1,143	2,298	2,937	3,028	3,520	3,690
Narrandera ...	1,815	2,255	2,374	3,012	3,660	3,550
Murrumburrah ...	1,226	1,448	2,136	2,958	3,020	3,000
Ballina ...	1,140	1,819	2,124	2,768	3,020	3,050
Bowral ...	2,258	1,752	1,751	2,620	3,020	3,140
Queanbeyan ...	1,262	1,219	1,273	1,825	4,020	4,030

*Towns in County Cumberland.

†Not incorporated 1891.

‡ Incorporated 1926 and district enlarged. § Locality, not incorporated, Aborigines excluded.

It would appear that the population of the unincorporated town of Weston reached a total of 3,665 in 1929. The foregoing list excludes municipalities with extensive areas or whose boundaries embrace more than one distinct locality.

The total population of these larger towns has grown at a fairly uniform rate during the whole of the period covered, and the towns of County Cumberland have shown an especially rapid increase in the last eighteen years. Newcastle, after twenty years of slow progress, made rapid headway between

1911 and 1921, largely on account of the growth of its manufacturing industries, and the advance is still being maintained. The other rural towns, on the whole, have maintained a steady growth throughout, but the decline of the silver-lead mining industry—due largely to derangement of the markets of the world—has arrested the growth of Broken Hill, which has actually lost population since the year 1911. Lithgow, a coal-mining and partly manufacturing town, continued to grow rapidly until 1927, but during 1928 the population declined by 1,310, due to slackness in the coal-mining industry and the removal of portion of the ironworks to Port Kembla, a slight increase being shown in 1929. Goulburn has developed, after twenty years of stagnation, into the leading town of the interior not dependent on mining; and Katoomba, a tourist centre 60 miles from Sydney, has grown rapidly.

A list of the mining settlements of the State, together with the number of their population at each of the last four censuses, was published on pages 155 and 156 of the Official Year Book for 1923.

SEX DISTRIBUTION.

As is the case in most of the younger countries, the population of New South Wales contains a surplus of males over females, although in older countries females are usually the more numerous.

The disparity in New South Wales is brought about by the operation of several factors. The development of the colony was first stimulated actively by the "gold rushes" and later depended on the pastoral and mining industries. This, combined with its remoteness from the Old World, led to far greater immigration of men than of women. In recent years the predominance of males among immigrants has tended to increase the disparity between the sexes.

On the other hand, despite the excess of male over female births, the higher rate of mortality among males renders the natural increase of females the greater. Thus, during the ten years, 1910 to 1919, the natural increase consisted of 147,640 males and 166,544 females. As a consequence the excess of males diminished, and the diminution was hastened by the war. During the ten years ended 1929 the natural increase of females was 16,948 greater than that of males, while the increase of males by migration was 15,546 greater than the increase of females from the same cause.

The distribution of the sexes at each census from 1871 to 1921, and at the end of each of the subsequent years was as follows:—

Year.	Distribution of Population in Sexes (including aboriginale).				Males per 100 Females.
	Males.	Females.	Proportion of Males.	Proportion of Females.	
			per cent.	per cent.	No.
1871	275,551	228,430	54·67	45·33	121
1881	411,149	340,319	54·86	45·14	121
1891	612,562	519,672	54·14	45·86	118
1901	712,456	646,677	52·42	47·58	110
1911	858,850	789,896	52·09	47·91	109
1921	1,072,424	1,029,544	51·02	48·98	104
1922	1,108,582	1,065,971	50·98	49·02	104
1923	1,128,089	1,083,017	51·02	48·98	104
1924	1,151,639	1,104,451	51·05	48·95	104
1925	1,172,470	1,127,611	50·98	49·02	104
1926	1,197,428	1,151,973	50·97	49·03	104
1927	1,224,847	1,177,037	50·99	49·01	104
1928	1,247,091	1,199,783	50·97	49·03	104
1929	1,261,970	1,217,177	50·90	49·10	104

From an analysis of the excess of males at each age-group at the census of 1921, it was concluded* that, although the tendency of the natural increase to maintain the predominance of males was greater between 1911 and 1921 than in the previous decade, it is clear, from the fact that the greatest surpluses of males were then at ages 50 to 65, that as time passes the proportion of females will increase.

BIRTHPLACES OF THE POPULATION.

Broadly speaking, nationality is determined in New South Wales by the common law principle of locality of birth, although it is also provided that, irrespective of place of birth, any child whose father was a British subject, or a child born on a British vessel, shall be deemed a British subject.

The nationality of the population of the State at the census of 1921 was preponderantly British, no less than 99.1 per cent. of the inhabitants being of British allegiance. The proportion born in Australia was 84.4 per cent.

ABORIGINALS.

The number of aboriginals in New South Wales during the first century after the date of settlement is not accurately known, but it is certain that they have never been numerous.

The first careful enumeration was made in 1891, when it was found that only 8,280 aboriginals of full blood were in existence. Since that date the numbers recorded at successive censuses have declined rapidly to 4,287 in 1901, 2,012 in 1911, and 1,597 in 1921.

Certain particulars relating to aboriginals are collected annually by the Aborigines' Protection Board through the agency of the police, but, owing to the difficulty of tracing individuals, it is not considered that a complete enumeration is obtained by this means. The number of aboriginals of full blood recorded at 30th June, 1929, was 1,234, of whom 720 were males and 514 were females. The number recorded by the same means at the date of the census in 1921 was 1,281, or 316 less than the total actually enumerated at the census.

Of the aboriginals of full blood enumerated in 1929, 156 were nomadic, 306 were in regular employment and 429 were living on reserves.

The numbers of half-castes enumerated at successive censuses were as follow:—In 1891, 3,183; in 1901, 3,147; in 1911, 4,512; and in 1921, 4,560, of whom 2,349 were males and 2,211 females. The number recorded at the annual collection of 30th June, 1929, was 7,108, comprising 3,829 males and 3,279 females. However, it is considered probable that this number is considerably overstated through the inclusion of full-bloods, for various reasons, and possibly through the inclusion of quadroons and persons of lesser caste.

Of the half-castes enumerated in 1929, 840 were nomadic and 1,940 were living on reserves.

NATURALISATION.

Under certain conditions a person of foreign allegiance may be granted a certificate of naturalisation, which entitles him to all the political and other rights, powers, and privileges, and subjects him to all obligations to which natural-born British subjects are entitled, or subject in the Commonwealth of Australia, except insofar as special distinction is made by law between the prerogatives of natural born and naturalised British subjects. The issue of these certificates is now exclusively a function of the Commonwealth.

* Official Year Book, 1922, page 243.

The privileges of naturalisation have not been widely sought in New South Wales on account of the smallness of the non-British element in the population. There were 458 persons naturalised during 1929. Since 1849 the total number of persons naturalised was 20,152: of whom 6,811 were of German origin; 1,815 were Swedes; 1,320 Russians; 1,259 Danes; 1,471 Italians; and 901 French. There were also 1,225 Asiatics, of whom 910 were Chinese and 303 Syrians. Only 2 Chinese have been naturalised in New South Wales since the passage of the Chinese Restriction and Regulation Act of 1888. Certificates of naturalisation issued under former State laws remain in force under the present Federal statute (Nationality Act, 1920).

VITAL STATISTICS.

REGISTRATION OF BIRTHS, DEATHS, AND MARRIAGES.

CIVIL registration of births, deaths, and marriages was inaugurated in New South Wales in March, 1856, when a general registry was established, and a Registrar-General appointed by the Governor. The laws relating to registration were consolidated by the Registration of Births, Deaths, and Marriages Act, 1899, and the Acts relating to marriage by the Marriage Act, 1899, which has been amended by the Marriage (Amendment) Acts, 1924 and 1925. New South Wales was divided into 218 registry districts at 1st January, 1930, in each of which a District Registrar has been appointed.

The births of all children born alive are required to be registered within sixty days of the birth, and a child is considered to have been born alive if it has breathed and has been wholly born into the world whether it has had an independent circulation or not. Usually, births are registered promptly in order to obtain the benefit of the maternity allowance. Stillbirths are not registered, though provision has been made whereby cases of stillbirth, attended by midwives registered under the Nurses' Registration Act, will be notified; but the returns forwarded under the Act have been too incomplete to give any indication of the number of stillbirths.

Before interment, notice of the death of any person must be supplied to the District Registrar by a relation of the deceased, or by the householder or tenant of the house or place in which the death occurs. Such notice must be accompanied by a proper certificate as to the cause of death. When a dead body is found, the death is registered by the Coroner or by the nearest Justice of the Peace.

Marriages may be celebrated only by a minister of religion registered for that purpose by the Registrar-General or by the District Registrar for marriages of the district in which the intended wife ordinarily resides. In the latter case the parties to be married must sign, before the District Registrar officiating, a declaration that they desire to be married, and affirming the usual place of residence of the intended wife. The proportion of marriages performed by Registrars has increased steadily from 3.5 per cent. in 1917 to 6.8 per cent. in 1929. Marriage of minors is permissible only with the written consent of parents or guardians. Marriage with a deceased wife's sister or a deceased brother's widow is valid in law in New South Wales.

At the beginning of 1930 there were registered 2,194 persons as Ministers of religion for the celebration of marriages in New South Wales. Of these, 615 belonged to the Church of England, 613 were Roman Catholics, 306 Methodist, 290 Presbyterian, 83 Congregational, 84 Baptist, 60 belonged to the Salvation Army, 36 were Seventh Day Adventists, 41 belonged to the Church of Christ, 9 to the Latter Day Saints, and 7 to the Jewish faith. There were 24 other religious bodies, represented by 50 ministers.

CONJUGAL CONDITION OF THE POPULATION.

The proportion of married persons living in New South Wales at the census of 1921 was considerably more than one-third of the population, being 37.4 per cent., which represents an increase from 33.5 per cent.

at the previous census. The actual numbers and proportions of the population (exclusive of aborigines), arranged in groups according to conjugal condition, at the census of 1921 were as follow:—

Conjugal condition.	Number.			Proportion per cent.		
	Males.	Females.	Total.	Males.	Females.	Total.
Never married—						
Under age 15 ...	343,979	334,385	678,364	32·19	32·56	32·37
Age 15 and over ...	302,574	237,693	540,267	28·32	23·14	25·78
Married ...	391,844	391,886	783,730	36·68	38·16	37·40
Widowed ...	27,851	60,701	88,552	2·60	5·91	4·23
Divorced ...	2,214	2,395	4,609	·21	·23	·22
Not stated ...	3,039	1,810	4,849	...	...	...
Total ...	1,071,501	1,028,870	2,100,371	100·00	100·00	100·00

The persons never married constituted 58·15 per cent. of the total population, but of these 678,364 (or 32·37 per cent. of the population) were under the age of 15 years. The number of males over the age of 15 years who have never been married was 302,574, and of females 237,693. The higher marriage rate of the decade 1911-1921 as compared with the preceding decade, coupled with the increasing proportion of persons of marriageable age, had the effect of considerably raising the proportion of married persons in the population. The proportion of married to the number of persons over the age of 15 years rose from 49·2 per cent. in 1911 to 55·1 per cent. in 1921. The number of males never married is considerably greater than the number of females never married, because of the facts that women generally marry at earlier ages than men, and that there is an excess of males over females in the population.

The following table affords a comparison of the proportions of each of the principal groups to the total population where the necessary particulars were stated at each of the last seven censuses:—

Census.	Males.				Females.			
	Never married.	Married.	Widowed.	Divorced.	Never married.	Married.	Widowed.	Divorced.
	per cent	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1861	69·34	28·23	2·43	*	61·09	35·14	3·77	*
1871	69·96	27·59	2·45	*	62·89	32·82	4·29	*
1881	70·64	26·94	2·42	*	63·52	31·75	4·73	*
1891	69·78	27·41	2·78	·03	62·87	32·11	5·00	·02
1901	68·46	28·69	2·75	·10	62·43	32·00	5·46	·11
1911	65·00	32·18	2·67	·15	59·30	35·03	5·52	·15
1921	60·51	36·68	2·60	·21	55·70	38·16	5·91	·23

* Divorce proceedings were first permitted under Matrimonial Causes Act, 1873.

There has been a steady decline since 1881 in the proportions of both sexes never married, and a corresponding increase in the proportions married. This is the result partly of the higher marriage rate since 1901, which in turn has been due in a large measure to the altered age-constitution of the population consequent on the declining birth-rate. The proportion of widowers has shown no appreciable increase during the period, although the proportion of widows has constantly increased, attaining the high proportion of nearly 6 per cent. of the total female population in 1921. The

increase in the proportion of divorced persons of both sexes has been relatively very rapid. The numbers and proportions of widowed and divorced persons shown are exclusive of those who had re-married.

MARRIAGES.

The number of marriages celebrated in New South Wales during 1929 was 19,535, corresponding to a rate of 7.93 per 1,000 of the population.

The following table shows the average annual number of marriages and the rates per 1,000 of the population since 1880:—

Period.	Average Annual Number of Marriages.	Rate per 1,000 of Population.	Period.	Average Annual Number of Marriages.	Rate per 1,000 of Population.
1880-84	6,738	8.39	1915-19	15,345	7.97
1885-89	7,679	7.67	1920-24	18,374	8.55
1890-94	7,954	6.80	1925	18,522	8.14
1895-99	8,700	6.74	1926	19,219	8.28
1900-04	10,240	7.37	1927	20,052	8.45
1905-09	12,080	7.97	1928	20,076	8.27
1910-14	15,978	9.17	1929	19,535	7.93

A review of the marriage rates since 1880 shows that the rates declined steadily for ten years prior to 1894, when they reached the lowest point, being only 6.25 per 1,000 of population. After that year an improvement, remarkable for its regularity, was experienced, until in 1912 the rate (9.55 per 1,000) was the highest then recorded. In 1915 the rate was slightly higher, probably due in part to marriages contracted by soldiers prior to their departure for the war. Owing to the absence of many marriageable men the rates for the next three years showed a decline, but coincident with the return of men from active service the rate rose appreciably in 1919 and still more in 1920. The movement of the subsequent years shows a sharp decline followed by a recovery. The average for the last five years, though appreciably less than in the quinquennia immediately before and after the war, was greater than for any other similar period since 1880. The comparatively low rate in 1929 was probably due to the prevailing industrial depression.

The following statement shows the marriage rate per 1,000 of the population in each State, the Commonwealth of Australia, and in New Zealand in 1929, compared with the rates of the previous five years:—

State.	1924.	1925.	1926.	1927.	1928.	1929.
New South Wales...	8.11	8.14	8.28	8.45	8.27	7.93
Victoria ...	8.10	8.00	7.90	7.88	7.52	7.31
Queensland ...	7.55	7.60	7.34	7.04	6.95	6.67
South Australia ...	7.78	7.82	8.06	7.98	7.18	6.42
Western Australia	7.22	7.46	7.58	8.07	8.29	8.18
Tasmania ...	7.12	7.05	6.79	6.82	7.09	8.01
Commonwealth ...	7.90	7.91	7.92	7.95	7.73	7.45
New Zealand ...	7.90	7.84	7.90	7.62	7.58	7.79

Divorces.

The number of marriages dissolved annually by divorce and decree of nullity has increased materially during recent years, and they are now of considerable magnitude in relation to the number of marriages celebrated annually. Particulars of the duration of such marriages and number of issue are shown in the chapter, "Law Courts," of this Year Book.

The number of marriages dissolved in New South Wales by decrees of divorce made absolute or by declarations of nullity, in 1929, was 1,078, being in the proportion of 5.5 per cent. to the number of marriages celebrated during the year. The corresponding numbers for 1928 were 921, equivalent to 4.6 per cent. of marriages.

Condition before Marriage.

During the year 1929, of the males married, 17,999 were bachelors, 1,083 were widowers, and 453 were divorced. Of the females, 18,209 were spinsters, 810 were widows, and 516 were divorced. The proportion of males remarried was 7.86 per cent, and of females 6.79 per cent.

The following table shows at quinquennial intervals since 1891 the proportion of first marriages and of re-marriages per 10,000 married:—

Period.	Bridegrooms per 10,000 married.		Brides per 10,000 married.	
	Bachelors.	Widowers and Divorced Men.	Spinsters.	Widows and Divorced Women.
1891	9,229	771	9,216	784
1896	9,184	816	9,172	828
1901	9,270	730	9,268	732
1906	9,262	738	9,352	648
1911	9,407	593	9,456	544
1916	9,377	623	9,362	638
1921	9,246	754	9,214	786
1926	9,229	771	9,280	720
1927	9,242	758	9,325	675
1928	9,237	763	9,344	656
1929	9,214	786	9,321	679

The proportions of widows and divorced women who re-married in the years 1916 and 1921 were greater than in the case of widowers and divorced men, whereas the reverse has usually been the case; the variation is probably due to the loss of life among married men at the war.

The following table shows the number of males and females of each condition married in each of the last five years:—

Year.	Number of Males married who were—			Number of Females married who were—		
	Bachelors.	Widowers.	Divorced.	Spinsters.	Widows.	Divorced.
1925	16,980	1,141	401	17,120	966	436
1926	17,738	1,109	372	17,836	889	494
1927	18,533	1,117	402	18,698	895	459
1928	18,544	1,105	427	18,759	834	483
1929	17,999	1,083	453	18,209	810	516

The proportion of re-marriages has shown a tendency to increase during the past fifteen years, but latterly the increase has been due mainly to the re-marriages of divorced persons. The number of widows re-married increased from 950 in 1919 to 1,223 in 1920, but it has since decreased steadily.

Age at Marriage.

The numbers of brides and bridegrooms in age groups in each of the last five years are shown in the following table. The ages recorded are those stated at marriage by the contracting parties, without verification, and they represent age last birthday.

Year.	Ages of Bridegrooms.				Ages of Brides.			
	Under 21 years.	21 to 29 years.	30 to 44 years.	45 and over.	Under 21 years.	21 to 29 years.	30 to 44 years.	45 and over.
1925 ...	1,291	11,036	5,112	1,083	4,645	10,341	3,017	519
1926 ...	1,380	11,679	5,085	1,075	4,985	10,647	3,027	560
1927 ...	1,405	12,546	4,956	1,145	5,285	11,184	3,008	575
1928 ...	1,519	12,403	5,016	1,138	5,426	11,079	3,000	571
1929 ...	1,405	12,339	4,611	1,180	5,167	10,939	2,843	586
1929	B. 1,404	12,216	3,874	505	S. 5,163	10,712	2,111	223
	W. 1	64	454	564	W. 3	89	409	309
	D. ...	59	283	111	D. 1	138	323	54

B, bachelors; S, spinsters; W, widowed; D, divorced.

Further details of the ages and condition of persons married each year are published in the Statistical Register of New South Wales.

In 1929 approximately 76 per cent. of first marriages among men and 87 per cent. among women were celebrated before attaining age 30, and the majority of marriages of persons over 45 years of age were re-marriages of one or both of the contracting parties.

The following statement shows the average age at marriage both of bridegrooms and of brides in various years since 1918. The difference between the ages at marriage of males and females is on the average about 3½ years, the males being the older.

Year.	Average Age of—		Average Age of—		Year.	Average Age of—		Average Age of—	
	All Bridegrooms.	Bachelors.	All Brides.	Spinsters.		All Bridegrooms.	Bachelors.	All Brides.	Spinsters.
1918	years. 30·0	years. 28·7	years. 26·1	years. 25·1	1925	years. 29·4	years. 28·1	years. 25·8	years. 24·8
1919	29·7	28·7	26·2	25·3	1926	29·2	28·0	25·8	24·7
1920	29·5	28·5	26·1	25·2	1927	29·1	27·8	25·6	24·6
1921	29·7	28·5	26·2	25·2	1928	29·0	27·8	25·6	24·6
1924	29·4	28·1	25·9	24·8	1929	29·0	27·7	25·5	24·5

The average age at marriage of both bridegrooms and brides increased by nearly twelve months between 1908 and 1918. Since the latter year there has been a steady reduction, and the average ages at marriage are now less than they were 20 years ago.

Marriages of Minors.

The number of minors married at each individual age is shown annually in the Statistical Register. The number of brides at each age under 21 in 1929, were 1 at 13; 19 at 14; 71 at 15; 337 at 16; 794 at 17; 1,152 at 18; 1,428 at 19; and 1,365 at 20. The corresponding numbers of bridegrooms were 8 at 16; 51 at 17; 200 at 18; 433 at 19; and 713 at 20.

The following are the numbers and proportions of brides and bridegrooms married under the age of 21 years:—

Year.	Minors.		Percentage of—	
	Bridegrooms.	Brides.	Bridegrooms.	Brides.
1881	149	1,660	2·37	26·42
1891	177	2,085	2·09	24·65
1901	351	2,546	3·33	24·15
1911	701	3,499	4·59	22·92
1921	833	3,850	4·50	20·79
1924	1,144	4,389	6·33	24·27
1925	1,291	4,645	6·97	25·08
1926	1,380	4,985	7·18	25·94
1927	1,405	5,285	7·01	26·36
1928	1,519	5,426	7·57	27·03
1929	1,405	5,167	7·19	26·45

The proportion of minors among bridegrooms increased over a long period of years up to the year 1912, when it was 4·62 per cent., fluctuating thence down and up to 4·68 per cent. in 1920. In the years that have ensued there has been a sustained increase, and over 7 per cent. of the bridegrooms married in 1929 were minors. Among brides the proportion of minors has always been much larger than among bridegrooms, but it decreased continuously, with irregular fluctuations until the low level of 20·79 per cent. was reached in 1921. Since that year there has been an appreciable increase, and the proportion in 1929 was 26·45 per cent.

Mark Signatures in Marriage Registers.

In 1870 the proportion of signatures made in the marriage register with marks was as high as 188·8 per 1,000 of the whole, but in 1928 the number of persons who signed in this way was only 63, and in 1929, 61, equal to 1·6 per 1,000 persons married in each year.

Marriages according to Denomination.

Of the marriages performed in New South Wales, over 93 per cent. are celebrated by ministers of religion licensed under the authority of the Registrar-General. The number of marriages at which clergymen officiated was 18,831 in the year 1928 and 18,200 in 1929. The number contracted before District Registrars was 1,245 in 1928 and 1,335 in 1929, the proportion being 6·2 per cent. in 1928 and 6·8 per cent. in 1929.

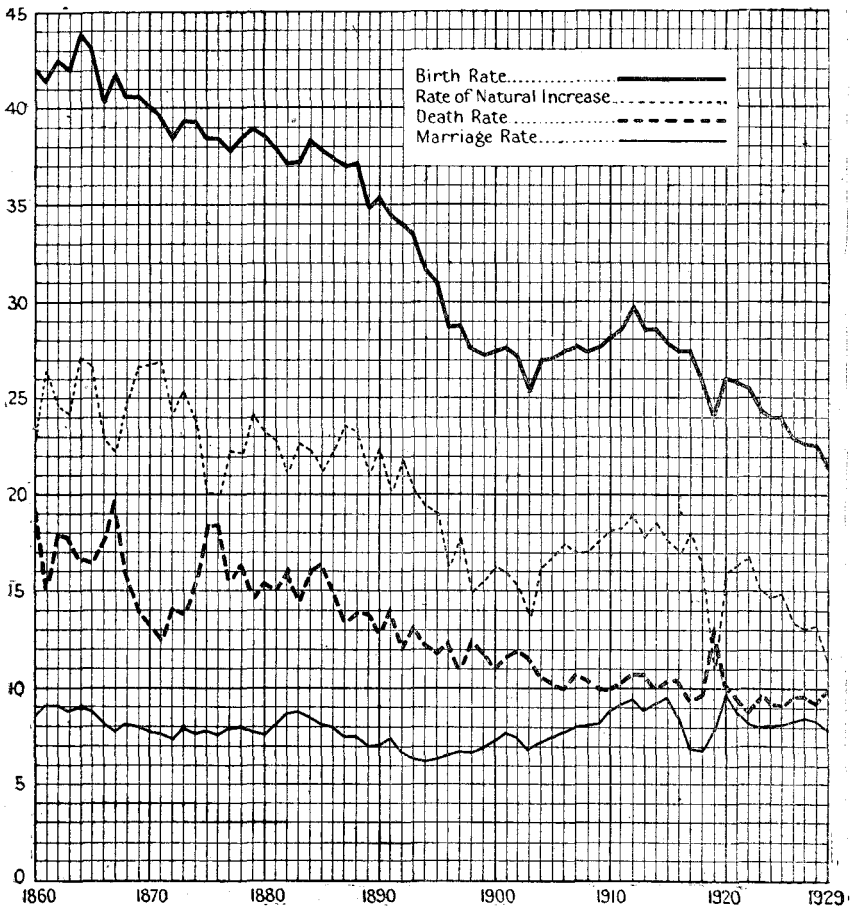
The following table gives the number and proportion per cent. of marriages registered by the several denominations during 1929 in comparison with the last ten years:—

Denomination.	1929.		1920-29.	
	Marriages.	Proportion per cent.	Marriages	Proportion per cent.
Church of England ...	8,062	41·27	81,313	42·96
Roman Catholic ...	4,071	20·84	38,324	20·25
Presbyterian ...	2,563	13·12	25,358	13·40
Methodist ...	2,242	11·48	22,440	11·86
Congregational ...	459	2·35	4,394	2·32
Baptist ...	332	1·70	2,810	1·48
Hebrew ...	59	0·30	464	0·24
All Other Sects ...	412	2·11	3,497	1·85
District Registrars ...	1,335	6·83	10,672	5·64
Total Marriages ...	19,535	100·00	189,272	100·00

The proportion per cent. of the number of adherents of the principal denominations at the census of 1921 to the total population was—Church of England, 49.60; Roman Catholic, 24.27; Presbyterian, 10.62; and Methodist, 8.79.

Thus the proportion of marriages, according to the rites of the two principal churches, was considerably below the proportional number of their adherents, while in the case of the Presbyterian and Methodist churches, the position was the reverse.

RATES OF BIRTHS, DEATHS, MARRIAGES, AND OF NATURAL INCREASE, 1860-1929.



The numbers at the side of the Graph represent rates per 1000 of mean population.

BIRTHS.

After the first few years included in the above graph the birth-rate shows a steady downward tendency. It fell sharply after 1888, and declined continuously until 1903, but after that year there was an improvement, and the rate in 1912 was the highest since 1895. During the war years, coincident with the decline in the marriage rate, there was a falling-off in the

birth-rate, which reached its lowest point in 1919, perhaps partly in consequence of an epidemic of influenza. However, despite a slight revival in the marriage rate, the birth-rate remained low and has continued to fall still further in the years succeeding the war. The birth-rate of 1924 was lower than in any previous year, and there has since been a pronounced decline.

The following table shows the average annual number of births and the birth-rate per 1,000 of the total population since 1880:—

Period.	Average Annual Number of Births.	Birth-rate per 1,000 of Population.	Period.	Average Annual Number of Births.	Birth-rate per 1,000 of Population.
1880-84	30,417	37·89	1915-19	51,331	26·64
1885-89	36,877	36·85	1920-24	54,321	25·27
1890-94	39,550	33·80	1925	54,615	24·00
1895-99	37,042	28·68	1926	53,126	22·88
1900-04	37,498	26·99	1927	53,858	22·68
1905-09	41,788	27·56	1928	54,800	22·59
1910-14	50,190	28·79	1929	52,672	21·37

The rates shown above are calculated by the usual "crude" method of relating the births to the total population, which is not altogether satisfactory. A preferable method for purposes of strict analysis is to relate the number of mothers giving birth to children at various ages to the total number of women at corresponding ages, or to relate the annual number of births to the number of women of child-bearing ages living during the year. Unfortunately these methods can be followed with exactitude only at census dates, since at any other time it is very difficult to make a reliable estimate of the number living at various ages, on account of migration and other influences.

The birth-rate per 1,000 women living at various groups of reproductive ages, from 15 to 45 years, have been calculated for the last four census years, and are shown in the following table:—

Ages of Mothers (years).	1891.	1901.	1911.	1921.	Decrease per cent. in rates, 1891 to 1921.
15-19	35·39	30·87	33·75	32·72	7·3
20-24	170·90	134·65	141·45	146·57	14·2
25-29	247·48	177·95	187·35	169·99	31·3
30-34	238·81	168·42	161·20	140·18	41·3
35-39	196·15	136·60	122·27	101·71	48·1
40-44	96·61	70·79	54·51	43·78	54·7
15-44	161·74	117·46	118·50	109·84	32·1

The crude birth-rate for New South Wales was 9·5 per cent. lower in 1921 than in 1911. The rate, calculated on the basis of the number of women of reproductive age, was only 7·4 per cent. lower.

From the foregoing table it will be seen that the decline since 1891 has been general in all age-groups, although it was more marked at the later than at the earlier ages, and became increasingly pronounced as age advanced. The contrast in experience in regard to the first and last quinquennia of the normal years of child-bearing is particularly striking. Whereas the birth-rate for women in the last quinquennium of child bearing years in

1891 was 174 per cent. greater than the rate for those in the first quinquennium of child bearing years, the corresponding proportion in 1921 was only 34 per cent. The rate in age group 20-24 has shown a persistent improvement since 1901, and that for the group 15-19 was higher in 1921 than in 1901.

The crude birth-rates per 1,000 of the population of each State of the Commonwealth and of New Zealand in the last seven years are given in the following table:—

State.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
<i>New South Wales</i> ...	24·68	24·07	24·00	22·88	22·68	22·59	21·37
Victoria ...	22·31	22·01	21·49	20·84	20·30	19·70	18·99
Queensland ...	24·89	23·87	23·82	22·58	22·24	21·76	19·99
South Australia ...	22·60	21·88	21·06	20·55	20·12	19·76	18·40
Western Australia ...	22·55	23·09	22·23	22·14	22·03	21·79	22·00
Tasmania ...	26·27	25·07	24·44	23·62	23·01	22·13	22·44
Commonwealth ...	23·77	23·24	22·89	22·02	21·67	21·33	20·31
New Zealand ...	21·94	21·57	21·17	21·05	20·29	19·56	19·01

Birth-Rates—Metropolis and Remainder of the State.

An informative analysis of the birth rate of New South Wales is made below by distinguishing the births occurring in Sydney and suburbs from those in the remainder of the State. Prior to the year 1893 the metropolitan crude birth-rate was the higher, but since then, with the exception of the year 1913, the country has consistently shown a higher crude rate.

Period.	Number of Births.			Births per 1,000 of Population.		
	Metropolis.*	Remainder of State.	New South Wales.	Metropolis.*	Remainder of State.	New South Wales.
1880-84	49,058	103,026	152,084	40·16	36·90	37·89
1885-89	65,866	118,517	184,383	41·50	34·69	36·85
1890-94	68,754	128,998	197,752	34·11	33·63	33·80
1895-99	61,224	123,986	185,210	26·73	29·75	28·68
1900-04	63,694	123,795	187,489	25·16	28·05	26·99
1905-09	72,409	136,529	208,938	25·50	28·80	27·56
1910-14	95,529	155,423	250,952	27·66	29·53	28·79
1915-19	100,216	156,439	256,655	25·02	27·81	26·64
1920-24	22,182	32,139	54,321	23·58	26·57	25·27
1925	22,036	32,579	54,615	21·51	26·03	24·00
1926	21,487	31,639	53,126	20·40	24·94	22·88
1927	20,588*	33,270*	53,858	18·98*	25·81*	22·68
1928	21,151*	33,649*	54,800	18·96*	25·67*	22·59
1929	22,347*	30,325*	52,672	18·18*	24·55*	21·37

* Since 1st Jan., 1927, births have been allocated according to usual address of mother. In Jan., 1929, the area of the Metropolis was increased by the inclusion of the municipalities of Auburn, Bankstown, Granville, Lidcombe and Parramatta.

The age and sex constitution of the metropolitan population is considerably different from that of the remainder of the State, therefore, comparisons of crude birth-rates are to be taken with reserve, except as indicating the direction of the general trend. Prior to 1927, the classification was according to place of registration of birth, but, from 1st January, 1927, the usual address of the mother was adopted as the basis of distribution. This change made an apparent reduction in the number of metropolitan births.

The Sexes of Children.

Of the 52,672 children born during 1929 (exclusive of those still-born), 27,065 were males and 25,607 were females, the proportion being 106 males to 100 females. As far as observation extends, the number of female births has not exceeded that of males in any year, although the difference has sometimes been very small.

The table below shows the number of males born to every 100 females born, both in nuptial and ex-nuptial births, during the last forty-nine years:—

Years.	Nuptial Births.	Ex-Nuptial Births.	All Births.	Years.	Nuptial Births.	Ex-Nuptial Births.	All Births.
1880-84	104·9	103·9	104·8	1915-19	105·3	104·0	105·2
1885-89	105·4	98·8	105·1	1920-24	104·6	107·3	104·8
1890-94	105·7	105·4	105·7	1925	104·0	108·9	104·3
1895-99	105·0	105·4	105·1	1926	105·3	101·9	105·1
1900-04	104·3	102·8	104·2	1927	106·6	108·1	106·9
1905-09	105·0	104·9	105·0	1928	106·6	106·5	106·6
1910-14	105·2	105·1	105·2	1929	105·6	106·4	105·7

Plural Births.

During the year 1929, there were 553 cases of plural births, of which one child or more was registered, comprised of 549 cases of twins and 4 cases of triplets. The live children thus born numbered 1,085, twins (522 males, 563 females), and triplets (7 males and 4 females). There were 14 still-births. Of these 553 cases, 30 were classified as ex-nuptial.

The number of children born at plural births was 2·08 per cent. of the total births.

The following table shows the number of cases of twins and triplets born in New South Wales during the years 1928 and 1929 and the last ten years, excluding those cases in which all were still-born, and distinguishing nuptial and ex-nuptial:—

	Twins.	Triplets.		Twins.	Triplets.
1928 Nuptial ...	526	6	1918-28 Nuptial ...	5,376	45
Ex-Nuptial ...	17	...	Ex-Nuptial ...	229	2
Total ...	543	6	Total ...	5,605	47
1929 Nuptial ...	519	4	1920-29 Nuptial ...	5,386	46
Ex-Nuptial ...	30	...	Ex-Nuptial ...	234	2
Total ...	549	4	Total ...	5,620	48

The last instance of quadruplets was in 1913.

The total number of confinements recorded during the ten years was 535,075; hence the rates per million confinements were 10,503 cases of twins and 90 of triplets; otherwise stated, there were 11 plural births in every 1,000 confinements.

EX-NUPTIAL BIRTHS.

The number of ex-nuptial births in 1929 was 2,720, equal to 5.16 per cent. of the total births and 1.10 per 1,000 of population. A statement of the ex-nuptial births in New South Wales at intervals since 1900 is given below:—

Year.	Number of Ex-Nuptial Births.	Ratio per cent. to Total Births.	Crude Rate per 1,000 of Population.	Year.	Number of Ex-Nuptial Births.	Ratio per cent. to Total Births.	Crude Rate per 1,000 of Population.
1900	2,605	7.01	1.92	1925	2,756	5.05	1.21
1905	2,912	7.37	2.00	1926	2,748	5.17	1.18
1910	2,900	6.37	1.79	1927	2,693	5.00	1.13
1915	2,681	5.07	1.42	1928	2,707	4.94	1.12
1920	2,635	4.88	1.27	1929	2,720	5.16	1.10

Over the whole State the proportion of ex-nuptial to total births has declined in a marked degree since 1905. It rose gradually from 4.35 per cent. in 1880 to 7.37 per cent. in 1905, after which a rapid decline occurred to 4.80 per cent. in 1916. The ratio rose again during the years 1917 to 1919, when the number of legitimate births declined. It fell to 4.9 per cent. in 1920, and three years later it began to rise again as the total number of births decreased. The rise and fall of this proportion followed in a general way the same course as the ex-nuptial birth-rate per 1,000 inhabitants, which rose between 1884 and 1894 from 1.57 to 2.09 per 1,000 of population. It remained near that level until 1905, then commenced to decline slowly but continuously.

The most accurate test to the extent of ex-nuptial births is obtained by relating the total number of such births recorded to the number of unmarried women of child-bearing age. This can only be done satisfactorily at census periods, but it indicates that, though the proportion of such births was increasing up to about 1890, it declined considerably in the next thirty years, the proportion of ex-nuptial children born, per 1,000 unmarried women aged 15 to 45, having fallen from 18.41 in 1891 to 16.10 in 1901, 14.18 in 1911, and 12.49 in 1921, a decrease of 32 per cent. since 1891.

The Legitimation Act, 1902.

In 1902 an Act was passed to legitimise children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Act, any child who comes within the scope of its purpose born before or after the passing thereof, is deemed to be legitimised from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. The total number of registrations under the Act up to the end of the year 1929 was 10,223. The number in each year of the last ten years is shown in the following table:—

Year.	Registrations.	Year.	Registrations.
1920	455	1925	414
1921	444	1926	532
1922	371	1927	646
1923	397	1928	668
1924	396	1929	496

NATURAL INCREASE.

The excess of births over deaths, or "natural increase," during 1929 was 28,057, equal to 11.38 per 1,000 of the population.

The following table shows the natural increase of population since 1890 in the Metropolis, in the remainder of the State, and in the whole of New South Wales:—

Year.	Natural Increase.					Annual Rate of Natural Increase per 1,000 of Population.
	Metropolis.*	Remainder of State.	Whole State.			
			Males.	Females.	Total.	
1890-94	38,859	82,787	57,233	64,413	121,646	20.79
1895-99	33,056	74,575	49,885	57,746	107,631	16.67
1900-04	34,470	73,377	49,695	58,152	107,847	15.52
1905-09	42,513	88,132	61,652	68,993	130,645	17.23
1910-14	58,969	101,218	75,648	84,539	160,187	18.38
1915-19	56,584	97,413	71,992	82,005	153,997	15.98
1920-24	65,737	103,822	80,484	89,075	169,559	16.63
1925	12,488	21,304	15,934	17,853	33,792	14.85
1926	11,267	19,671	14,536	16,492	30,938	13.32
1927	10,170*	20,918*	14,827	16,261	31,088	13.09
1928	10,743*	21,363*	15,489	16,617	32,106	13.24
1929	9,878*	18,179*	13,026	15,031	28,057	11.38

* Since 1st January, 1927, births have been distributed according to usual address of mother, and deaths according to usual address of deceased. The area of the metropolis was increased in 1929. See foot-note to Table on page 301.

Despite slight fluctuations the rate of natural increase is declining, and since 1922 the decline has been rapid. The change in the basis for distributing births and deaths in 1927 has materially altered the allocation between metropolis and remainder of State.

On account of the decrease in death-rates, the rate of natural increase prior to the war period had been improving slightly for about sixteen years. The increase per 1,000 of population for the five years 1915-19, however, was 13 per cent. lower than that for the previous quinquennium; in 1922 it showed a slight improvement as compared with the years immediately preceding it, but the average for the five years ending 1929 shows a decline of 28 per cent. below the pre-war average.

Although the number of males born is more numerous than that of females, the increase of population from the excess of births over deaths is greatly in favour of the latter, since there is a disproportionately large number of deaths among males. There is also a greater mortality among male than among female children, and by this cause alone the natural excess of male births is almost neutralised. During the ten years which closed with 1929, the number of females added to the population by excess of births over deaths exceeded the males by 16,948, or 11 per cent.

The respective increases from natural and migratory causes are shown in chapter "Population" of this Year Book.

Analyses of the natural and migratory increases in the population of the State since 1861 and of the various divisions of the State since 1891 are shown on pages 226 and 236 of the Year Book for 1922.

Since 1923 there has been a decrease in the rates of natural increase in all the Australian States, and the rates have declined in New Zealand since 1925, as will be seen from the table below. The rates are per 1,000 of population.

State.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
New South Wales...	15.08	14.73	14.85	13.32	13.09	13.24	11.38
Victoria ...	11.60	11.96	12.02	11.21	10.59	9.59	9.54
Queensland ...	15.06	14.99	14.96	13.09	13.18	12.99	11.01
South Australia ...	13.01	12.69	11.91	11.82	11.14	10.84	9.70
Western Australia	14.14	14.01	13.23	13.21	13.22	12.68	12.45
Tasmania ...	16.35	15.18	15.09	14.57	13.33	12.07	12.27
Commonwealth ...	13.88	13.77	13.69	12.60	12.22	11.88	10.76
New Zealand ...	12.91	13.28	12.88	12.31	11.84	11.07	10.28

DEATHS.

The deaths during 1929 numbered 24,615, equal to a rate of 9.99 per 1,000 of the mean population. Of the total, 14,039 were males and 10,576 females, the rate for the former being 11.18, and for the latter 8.75 per 1,000 living of each of the sexes. The average annual number of deaths from 1880, with the rate per 1,000 of population, in quinquennial periods, was as follows:—

Period.	Average Annual Number of Deaths.			Death-rate per 1,000 of Population.			Proportion per cent. of Male to Female Rate.
	Males.	Females.	Total.	Males.	Females.	Total.	
1880-84	7,286	5,124	12,410	16.55	14.14	15.46	117
1885-89	8,461	6,043	14,504	15.43	13.36	14.49	115
1890-94	8,877	6,344	15,221	14.06	11.77	13.01	119
1895-99	9,002	6,514	15,516	13.11	10.77	12.01	122
1900-04	9,195	6,733	15,928	12.65	10.17	11.47	124
1905-09	9,076	6,583	15,659	11.52	9.04	10.33	127
1910-14	10,598	7,555	18,153	11.59	9.11	10.41	128
1915-19	11,919	8,613	20,532	12.20	9.07	10.66	137
1920-24	11,696	8,713	20,409	10.67	8.27	9.49	129
1925	11,944	8,879	20,823	10.29	7.96	9.15	129
1926	12,685	9,503	22,188	10.72	8.34	9.56	129
1927	12,978	9,792	22,770	10.81	8.41	9.59	127
1928	12,785	9,909	22,694	10.33	8.33	9.35	124
1929	14,039	10,576	24,615	11.18	8.75	9.99	128

The death-rate has fallen continuously for both sexes, but faster for females than for males. As shown above, the rate during the five years 1880-84 was over 62 per cent. higher than that experienced during the five years 1925-29. Many causes are responsible for this improvement, such as the enforcement of Health Acts, the advance of science, and the better education of the people. The remarkable effect of these factors on the death-rates of the population in the early years of life is dealt with later in connection with deaths of children under 1 year and under 5 years.

A table of the death-rates per 1,000 of mean population in each of the Australian States and in New Zealand from 1923 to 1929 is shown below:—

State.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
New South Wales ...	9·60	9·34	9·15	9·56	9·59	9·35	9·99
Victoria ...	10·71	10·05	9·47	9·63	9·71	10·11	9·45
Queensland ...	9·83	8·88	8·86	9·39	9·06	8·77	8·98
South Australia ...	9·59	9·19	9·15	8·73	8·98	8·92	8·70
Western Australia ...	8·41	9·08	9·00	8·93	8·81	9·11	9·55
Tasmania ...	9·92	9·89	9·35	9·05	9·68	10·06	10·17
Commonwealth ...	9·89	9·47	9·20	9·42	9·45	9·45	9·55
New Zealand ...	9·03	8·29	8·29	8·74	8·45	8·49	8·75

The above comparison represents the respective crude death-rates of the States enumerated. The differences in the age and sex constitution of the individual populations have not been taken into account, therefore the rates are not strictly comparable with each other as showing the true incidence of mortality in the various States.

Such a comparison can be made by applying the rates of mortality in age and sex groups to a standard population embodying a fixed distribution according to age and sex. The resultant rates constitute an index of mortality or weighted average death-rate which, in effect, shows what would have been the death-rate if the age and sex distribution of the population compared each year had been in accordance with the standard adopted. The standard used is identical with that provided by the International Statistical Institute in Part II, p. viii of the *Annuaire International de Statistique*, 1917.

The index of mortality so calculated for each of the Australian States is shown below:—

State.	1923.	1924.	1925.	1926.	1927.	1928.
New South Wales ...	10·61	10·31	10·13	10·62	10·64	10·40
Victoria ...	10·97	10·31	9·74	9·91	10·02	10·46
Queensland ...	10·97	9·90	9·94	10·47	10·20	9·92
South Australia ...	9·90	9·50	9·43	9·02	9·30	9·21
West Australia ...	9·79	10·82	10·67	10·63	10·71	11·14
Tasmania ...	10·49	10·43	9·94	9·70	10·43	10·76
Commonwealth ...	10·64	10·20	9·93	10·20	10·43	10·44

It is necessary to emphasise that the above rates are hypothetical and are serviceable only for purposes of comparison *inter se* and with death-rates of other countries calculated on the same basis. The age and sex distribution in the standard population is supposititious, being based on an agglomeration of European populations.

Death-rates—Age and Sex.

The remarks already made regarding the limitations in the use of crude birth-rates apply also to the conclusions to be drawn from tables of crude death-rates published above. The age and sex distribution of a population are most important factors to be considered in comparing death-rates. In New South Wales usually more than half the deaths are of persons over 55 years of age, the rates of mortality below and above that age being roughly 5 and 45 per 1,000 respectively. It follows that any variation in the proportion of persons in the various age groups will have a considerable bearing on the death-rate of the whole population.

Again, as shown above, the death-rate of males during the same period was 29 per cent. more than that of females. Consequently an increase in the proportion of females will be reflected in a corresponding decrease in the general rate.

In the following table death-rates are given for each sex in the principal age-groups during the four decennial periods from 1881 to 1920:—

Age-Group, Years.	Deaths per 1,000 Living—All causes.				Reduction per cent., 1881-90 to 1901-10.
	1881-90.	1891-1900.	1901-10.	1911-20.	
Males.					
0-4	44.57	37.65	27.90	23.28	37
5-9	3.62	2.88	2.07	1.95	43
10-14	2.44	2.08	1.78	1.52	27
15-19	3.74	3.13	2.85	2.58	24
20-24	5.83	4.38	3.67	3.83	37
25-34	7.72	5.88	4.51	5.16	41
35-44	10.92	9.13	7.46	7.07	32
45-54	17.65	14.69	12.87	12.65	28
55-64	30.46	29.05	24.95	23.91	17
65-74	63.67	56.58	58.77	52.39	8
75 and over ...	149.36	148.98	142.43	147.36	4
All Ages ...	15.62	13.43	11.77	11.81	24
Females.					
0-4	40.47	32.98	24.21	19.61	40
5-9	3.29	2.77	1.88	1.79	43
10-14	2.18	1.77	1.58	1.25	28
15-19	3.52	2.80	2.53	1.94	30
20-24	5.40	4.12	3.59	3.20	33
25-34	7.44	5.70	4.71	4.52	26
35-44	9.95	8.04	6.82	5.61	32
45-54	13.83	10.86	9.50	8.65	32
55-64	23.12	21.16	18.24	16.43	21
65-74	52.73	43.48	45.91	40.67	10
75 and over ...	135.66	134.14	123.05	127.15	9
All Ages ...	13.47	11.02	9.47	8.96	30
Total.					
0-4	42.56	35.35	26.08	21.49	39
5-9	3.46	2.83	1.98	1.87	42
10-14	2.32	1.93	1.68	1.39	28
15-19	3.63	2.97	2.69	2.25	26
20-24	5.63	4.25	3.63	3.50	36
25-34	7.60	5.83	4.60	4.84	39
35-44	10.53	8.67	7.17	6.37	32
45-54	16.19	13.11	11.42	10.83	30
55-64	27.62	25.83	22.04	20.62	20
65-74	59.39	51.22	53.22	47.07	10
75 and over ...	144.15	142.68	133.72	137.81	7
All Ages ...	14.65	12.31	10.67	10.42	27

Because of the incidence of the epidemic of influenza in 1919, comparison is made between the rates of the periods 1881-1890 and 1901-1910.

The death-rates for females were reduced 30 per cent., as against 24 per cent. in the case of those for males. As regards age, the improvement was fairly constant under 55. Above that age improved conditions naturally had less effect. The ages at which death-rates are most favourable are between 10 and 14 years; and between the ages of 5 and 45 years they are generally considerably below the average.

Deaths—Metropolis and Remainder of the State.

It is not possible to show the exact difference between urban and rural mortality in New South Wales, but an approximate idea may be obtained from a comparison of the experience of the metropolis with that of the remainder of the State, which is, of course, not entirely rural, as a few large industrial towns are contained therein, notably Newcastle, Broken Hill and Lithgow. A summary of the average annual number of deaths and the rate per 1,000 in each of these divisions since 1880 is given in the following table:—

Period	Metropolis.*		Remainder of the State.		New South Wales.	
	Average Number of Deaths.	Ratio per 1,000 Living.	Average Number of Deaths.	Ratio per 1,000 Living.	Average Number of Deaths.	Ratio per 1,000 Living.
1880-84	5,033	20·60	7,377	13·21	12,410	15·49
1885-89	6,181	19·47	8,323	12·18	14,504	14·46
1890-94	5,979	14·83	9,242	12·05	15,221	13·01
1895-99	5,634	12·30	9,882	11·86	15,516	12·01
1900-04	5,845	11·54	10,083	11·42	15,928	11·47
1905-09	5,979	10·53	9,680	10·21	15,659	10·33
1910-14	7,312	10·59	10,841	10·30	18,153	10·41
1915-19	8,727	10·89	11,805	10·49	20,532	10·66
1920-24	9,034	9·60	11,375	9·41	20,409	9·49
1925	9,548	9·32	11,275	9·01	20,823	9·15
1926	10,220	9·70	11,968	9·43	22,188	9·56
1927	10,418*	9·62	12,352*	9·66	22,770	9·59
1928	10,408*	9·33	12,286*	9·37	22,694	9·35
1929	12,469*	10·15	12,146*	9·83	24,615	9·99

* From 1st January, 1927, deaths were distributed according to usual address of deceased, but previously according to place of registration of death. The area of the Metropolis was increased in 1929. See foot-note to Table on page 301.

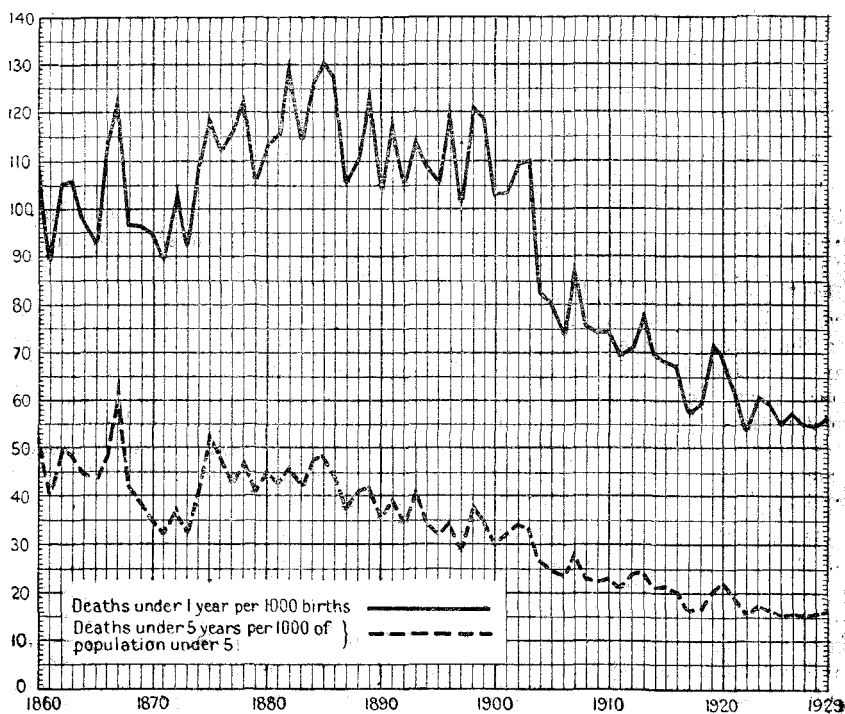
The death-rate has improved steadily both in the metropolis and in the remainder of the State, but notably so in the former, where it is now only slightly higher than in the latter, whereas in the period 1885-89 it was about 60 per cent. greater. The improvement dates from the quinquennium beginning with the year 1890, and is coincident with the installation of the modern system of sewerage and the enforcement of the provisions of

the Dairies Supervision Act of 1886. The marked decline in the crude rates for each division and for the State as a whole is evident from the fact that the metropolitan crude rate for the period 1880-84 was 20.6 per 1,000, and for the year 1929 it was 10.2, or an improvement of 51 per cent. For the same periods the crude rates for the remainder of the State were respectively 13.2 and 9.8, or a difference of nearly 26 per cent., and for the whole State, 15.5 and 10, or an improvement of nearly 36 per cent. Crude rates of death, however, must be taken rather as an indication of the general trend than of the exact extent of the movement.

THE MORTALITY OF INFANTS.

A further and more sensitive comparison of the rates of mortality in the metropolis and in the remainder of the State may be obtained by considering the death-rates of infants.

INFANTILE MORTALITY, 1860-1929.



Deaths of Children under 1 Year.

During the year 1929, the children who died before completing the first year of life numbered 2,983, equivalent to a rate of 56.6 per 1,000 births. This rate is 0.6 per cent. higher than the average for the previous five years:

The number of deaths of children under one year of age in the metropolis in 1929 was 1,263, or 56.5 per 1,000 births, and in the remainder of the State 1,720, or 56.7 per 1,000 births. The rate for the metropolis was slightly higher than the average of the previous year.

The following table shows the average annual number of deaths of children under 1 year of age in the metropolis and in the remainder of the State, and the proportion per 1,000 births, in quinquennial periods since the year 1880:—

Period.	Metropolis.*		Remainder of State.		New South Wales.	
	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.
1880-84	1,707	174·0	1,956	94·9	3,663	120·4
1885-89	2,168	164·6	2,256	95·2	4,424	120·0
1890-94	1,908	138·8	2,471	95·8	4,379	110·7
1895-99	1,646	134·4	2,572	103·7	4,218	113·9
1900-04	1,416	111·2	2,399	96·9	3,815	101·7
1905-09	1,255	86·7	2,035	74·5	3,290	78·7
1910-14	1,437	75·2	2,211	71·1	3,648	72·7
1915-19	1,373	68·5	1,959	62·6	3,332	64·9
1920-24	1,404	63·3	1,932	60·1	3,336	61·4
1925	1,255	57·0	1,744	53·5	2,999	54·9
1926	1,315	61·2	1,745	55·2	3,060	57·6
1927	1,161*	56·4*	1,799*	54·1*	2,960	55·0
1928	1,042*	49·3*	1,962*	58·3*	3,004	54·8
1929	1,263*	56·5*	1,720*	56·7*	2,983	56·6

* Classified according to place of usual residence of mother, from 1st January, 1927. The area of the Metropolis was increased in 1929. See foot-note to Table on page 301.

The remarkable improvement which has taken place in the infantile mortality rate in the period covered by the above table is due in a large degree to the measures adopted to combat preventable diseases by health laws and by education. The first important step was taken in 1881, when the Infectious Diseases Supervision Act became law. In 1896 the Public Health Act was passed, and in 1902 the acts relating to Public Health were consolidated. About this time a world-wide movement drew attention to the benefit of breast-feeding and the dangers attending the methods of artificial feeding then in vogue. A scheme for the preservation of infant health was formulated by the Sydney Municipal Council in 1903, and instructional pamphlets were circulated for the guidance of mothers in the care and feeding of young children. In the following year trained women inspectors were appointed to visit mothers in the populous parts of the city and in the surrounding suburbs.

During the year 1904 infantile mortality showed a marked improvement on the rates experienced for about thirty years. A reference to the principal causes of death during the years immediately prior to and after the year in question will show that a decrease was experienced in all causes in which care and knowledge could have effect. Thus the mortality from diarrhoea and enteritis dropped from 36.90 per 1,000 births in 1903 to 21.31 in 1904; tubercular diseases from 3.06 to 1.58; and congenital debility from 15.54 to 12.98.

Further efforts to reduce the rate of infantile mortality have been made since 1914 through the establishment in Sydney and in various country localities of baby health centres, and through the formation of a number of public bodies which are affiliated with the Royal Society for the Welfare of Mothers and Babies. Particulars relating to these institutions will be found in chapter "Social Condition" of this Year Book.

In 1926 the Senior Medical Officer of the Department of Public Health was appointed a Director of Maternal and Baby Welfare to supervise public activities relating to the health of women and children.

The decline in infantile mortality, especially in diarrhoeal diseases, is illustrated by the following table, which gives the mortality rate per 1,000 births since 1900 from diarrhoeal diseases, and from all other causes:—

Period.	Deaths under 1 year of age per 1,000 Births.			Year.	Deaths under 1 year of age per 1,000 Births.		
	Diarrhoeal Diseases.	All other Diseases.	All causes.		Diarrhoeal Diseases.	All other Diseases.	All causes.
1900-04	29·52	72·21	101·73	1925	7·71	47·20	54·91
1905-09	21·06	57·66	78·72	1926	11·76	45·84	57·60
1910-14	20·64	52·04	72·68	1927	7·32	47·64	54·96
1915-19	13·94	50·97	64·91	1928	10·95	43·87	54·82
1920-24	13·77	47·64	61·41	1929	6·95	49·68	56·63

The incidence of diarrhoeal diseases in recent years has tended to fluctuate irregularly with seasonal conditions, being relatively high in dry seasons and low in years of bountiful rainfall. In 1926, when the rainfall was below normal during several months, diarrhoeal diseases caused 20·5 per cent. of the deaths of infants under 1 year of age, as compared with 14 per cent. in 1925, and 13 per cent. in 1927, when there were abundant rains. In these years the mortality from diarrhoeal diseases outside the metropolis reached the remarkably low proportion of 6 per 1,000 births.

The experience of all States of the Commonwealth was similar to that of New South Wales, in that the reduction in infantile mortality rates which occurred in 1904 has been maintained through a large falling-off in the number of deaths from diarrhoeal diseases.

Infantile Mortality by Sex.

The death-rate is higher for male infants than for females, the rates in 1929 being 63·3 and 49·6 per 1,000 births respectively. The rates for each sex are shown in the following table in quinquennial periods from 1880 to 1924, and in single years thereafter.

Period.	Males.		Females.	
	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.
1880-84	1,992	127·9	1,671	112·5
1885-89	2,405	127·2	2,019	112·3
1890-94	2,413	118·7	1,966	102·3
1895-99	2,304	121·4	1,914	105·9
1900-04	2,077	108·5	1,738	94·6
1905-09	1,832	85·6	1,458	71·5
1910-14	2,037	79·2	1,611	65·8
1915-19	1,892	71·9	1,440	57·6
1920-24	1,900	68·4	1,436	54·1
1925	1,640	58·8	1,359	50·8
1926	1,750	64·3	1,310	50·6
1927	1,620	58·3	1,340	51·4
1928	1,687	59·7	1,317	49·6
1929	1,714	63·3	1,269	49·6

During the period reviewed, the excess of the male infantile death-rates per 1,000 births fluctuated from 16·4 in the quinquennium 1890-94 and in the year 1922, to a minimum of 6·9 in 1927. In 1929 the difference was 13·7,

Infantile Mortality by Age.

Of the total number of deaths of infants under 1 year of age, about 40 per cent. occur within a week of birth; within the first month the proportion is over one-half, and within three months more than two-thirds. The following statement shows the number and proportion of deaths at various ages under one year in the metropolis and in the whole State.

Age at Death.	1928.				1929.			
	Metropolis.		State.		Metropolis.*		State.	
	Number of Deaths.	Deaths per 1,000 Births.	Number of Deaths.	Deaths per 1,000 Births.	Number of Deaths.	Deaths per 1,000 Births.	Number of Deaths.	Deaths per 1,000 Births.
Under 1 week ...	440	20.8	1,271	23.2	519	23.2	1,253	23.8
1 week ...	53	2.5	156	2.9	78	3.5	190	3.6
2 weeks ...	34	1.6	92	1.7	32	1.4	93	1.8
3 „ ...	29	1.4	84	1.5	49	2.2	106	2.0
Under 1 month, Total	556	26.3	1,603	29.3	678	30.3	1,642	31.2
1 month ...	60	2.8	156	2.8	88	3.9	193	3.6
2 months ...	58	2.7	168	3.1	76	3.4	149	2.8
3 „ ...	44	2.1	132	2.4	58	2.6	137	2.6
4 „ ...	57	2.7	143	2.6	59	2.7	120	2.2
5 „ ...	51	2.4	116	2.1	47	2.1	113	2.1
6 „ ...	33	1.6	128	2.3	52	2.4	125	2.4
7 „ ...	44	2.1	117	2.1	43	1.9	100	1.9
8 „ ...	34	1.6	123	2.2	34	1.5	99	1.9
9 „ ...	30	1.4	92	1.7	46	2.1	97	1.9
10 „ ...	36	1.7	108	2.0	41	1.8	101	1.9
11 „ ...	39	1.9	118	2.2	41	1.8	107	2.1
Under 1 year, Total	1,042	49.3	3,004	54.8	1,263	56.5	2,983	56.6

* Area increased in 1929. See foot-note to Table on page 301.

A similar table relating to the five years, 1919-23, was published in the Year Book for 1924 at page 120.

As stated above, more than half the deaths of children under one year of age occur in the first month of life, but in the second month the rate of mortality falls rapidly, and thereafter gradually. The rate of infantile mortality is generally higher in the metropolis than in the remainder of the State.

A further dissection of the experience in regard to infantile mortality discloses the fact that, despite the marked decline in infantile mortality, the proportion of deaths of children under 1 week old has actually increased in the past twenty-nine years, while at all other ages under one year there had been a sustained improvement.

This may be illustrated strikingly by the statement that, whereas the rate of mortality among children within one week of birth was 20.5 per 1,000 births in 1901 and 23.8 per 1,000 births in 1929, the corresponding rates among children over one week and under twelve months old were 83.2 per 1,000 in 1901, and 32.8 per 1,000 in 1929—a decline of 60.4 per cent. It is shown on a later page that the principal causes of death among children in their first week of life were premature birth, congenital debility, malformation and injury at birth, which in 1929 were responsible for 85 per

cent. of the deaths of children during the first week of life, causing 20.3 deaths per 1,000 births out of the total rate of 23.8. These causes are not generally connected with post-natal care of children, and they tend, when considered as an integral part of the rate of mortality, to obscure the remarkable improvement which has been effected by the dissemination of knowledge and the promotion of health measures for the care of infants. Although more skilful attention after birth may decrease the number of infants who died from pre-natal causes, it is fully recognised that a general improvement in the rate of mortality among infants in the first week of life will not be attained except through increased pre-natal care, and considerable attention is being given to the care and instruction of expectant mothers.

The following table shows the rates of mortality among infants in age groups during the first year of life for each year since 1901:—

Year.	Rate of Mortality per 1,000 Births among Children aged—						
	Under 1 week.	1 week and under 1 month.	1 month and under 3 months.	Total under 3 months.	3 months and under 6.	6 months and under 12.	Total under 1 year.
1901	20.5	12.2	22.1	54.8	22.4	26.5	103.7
1902	21.3	12.3	22.2	55.8	24.8	29.1	109.7
1903	21.2	11.3	19.5	52.0	26.3	32.1	110.4
1904	21.8	9.7	14.9	46.4	15.8	20.2	82.4
1905	24.3	10.9	13.0	48.2	15.9	16.5	80.6
1906	21.8	9.0	11.8	42.6	14.3	17.6	74.5
1907	23.1	11.3	17.8	52.2	15.8	20.6	88.6
1908	21.5	9.5	11.9	42.9	15.9	17.0	75.8
1909	21.3	9.8	11.6	42.7	14.9	16.7	74.3
1910	21.1	9.2	13.4	43.7	14.3	16.6	74.6
1911	22.3	9.9	11.9	44.1	11.7	13.7	69.5
1912	21.5	8.4	10.6	40.5	13.1	17.7	71.3
1913	22.9	9.5	11.8	44.2	14.7	19.4	78.3
1914	23.5	8.8	10.1	42.4	11.6	15.7	69.7
1915	25.1	7.6	9.4	42.1	9.3	16.7	68.1
1916	23.5	8.3	10.3	42.1	10.0	15.7	67.8
1917	22.9	7.4	8.5	38.8	7.6	11.1	57.5
1918	25.1	7.8	8.0	40.9	7.9	10.4	59.2
1919	26.2	9.0	9.6	44.8	11.5	16.0	72.3
1920	23.9	8.4	10.8	43.1	11.5	15.2	69.8
1921	23.4	7.4	10.2	41.0	9.6	12.3	62.9
1922	22.2	7.6	7.5	37.3	6.7	10.0	54.0
1923	22.8	7.5	7.7	38.0	9.2	13.8	61.0
1924	23.2	7.4	8.5	39.1	8.4	12.0	59.5
1925	23.1	6.7	7.8	37.6	7.4	9.9	54.9
1926	24.3	6.5	6.6	37.4	7.8	12.4	57.6
1927	22.5	7.2	7.8	37.5	7.4	10.1	55.0
1928	23.2	6.1	5.9	35.2	7.1	12.5	54.8
1929	23.8	7.4	6.4	37.6	6.9	12.1	56.6

Allowing for the operation of pre-natal causes upon the mortality in the first week of life, it is evident that pronounced improvement took place in the rates of infantile mortality immediately after the adoption of special educative measures in 1904 and 1914, and that, although special factors have operated to increase infantile mortality in certain years there has been a steady and sustained improvement. It is particularly noteworthy that the improvement is greatest among children aged one month and over. Up to that age the operation of pre-natal causes produces the majority of deaths.

The following statement furnishes a comparison of the rates of infantile mortality in the Australian States, in New Zealand, and in various other countries. The rates indicate the deaths under 1 year per 1,000 births. As the rates quoted are for a single year only and fluctuate from year to year they do not show the permanent relativity between the rates prevailing in the countries named.

State.	Year.	Rate.	Country.	Year.	Rate.
New Zealand ...	1929	34.1	Netherlands ...	1928	52
South Australia ...	„	41.0	Switzerland ...	1928	54
Queensland ...	„	46.0	Sweden ...	1928	62
Victoria ...	„	47.2	England and Wales..	1928	65
Commonwealth ...	„	51.1	*United States ...	1928	68
Tasmania ...	„	53.2	Irish Free State ...	1927	70
Western Australia ...	„	56.2	†South Africa ...	1928	71
<i>New South Wales</i> ...	„	56.6	Canada ...	1929	77
			Northern Ireland ...	1928	78
New Zealand ...	1928	36.2	France ...	1927	83
Queensland ...	„	45.5	Scotland ...	1928	86
South Australia ...	„	47.5	Germany ...	1928	89
Western Australia ...	„	48.1	Prussia ...	1928	89
Commonwealth ...	„	53.0	Belgium ...	1927	92
<i>New South Wales</i> ...	„	54.8	Finland ...	1927	97
Victoria ...	„	55.6	Italy ...	1927	120
Tasmania ...	„	63.9	Austria ...	1926	123
			Spain ...	1927	127
			Japan ...	1927	142
			Hungary ...	1927	185

* Registration Area.

† White people only.

The rate of infantile mortality in New Zealand is the lowest of the rates shown in the foregoing table, and the rates for Australasia generally are greatly superior to those prevailing in most other countries for which comparable records are available. Wide differences between climatological and economic conditions should be allowed for in considering the relationship between the rates shown for the various countries.

Causes of Infantile Mortality.

A table published on page 86 of the Statistical Register for 1927-28 shows the rates of infantile mortality for each of the principal causes in each year since 1896. This indicates that there has been a heavy decline in the mortality from diarrhoea, enteritis, and other digestive diseases, congenital debility, nervous diseases, tubercular diseases, and bronchitis. A

smaller decline has occurred in deaths from minor causes, such as meningitis, diseases of the stomach, accident, and general diseases. On the other hand, deaths from malformation, premature birth, and diseases of early infancy have increased proportionately. The mortality from epidemic diseases fluctuates considerably with a tendency to decline.

The following table shows the incidence of mortality caused by the principal diseases among infants at various periods during the first year of life in 1929, showing the experience in the metropolis in comparison with that in the whole State:—

Cause of Death.	Deaths of Children under One Year of Age per 1,000 Births (1929).							
	Metropolis.*				State.			
	Under 1 week.	1 week and under 1 month.	1 month and under 1 year.	Total.	Under 1 week.	1 week and under 1 month.	1 month and under 1 year.	Total.
Epidemic Diseases ...	...	·31	5·10	5·41	·02	·28	4·12	4·42
Tuberculosis ...	...	...	·04	·04	...	...	·42	·42
Syphilis ...	·04	...	·27	·31	·04	·06	·19	·29
Meningitis ...	...	·04	·59	·63	...	·04	·57	·61
Convulsions ...	·04	·04	·23	·31	·11	·09	·27	·47
Bronchitis ...	...	·31	·54	·85	...	·21	·72	·93
Pneumonia ...	·27	·89	6·18	7·34	·15	·78	5·90	6·83
Diarrhoea and Enteritis ...	·09	·36	6·00	6·45	·07	·29	6·59	6·95
Malformation ...	2·01	·63	1·88	4·52	2·17	·95	1·67	4·79
Congenital Debility ...	1·88	1·26	1·02	4·16	1·97	1·14	1·14	4·25
Premature Birth ...	14·01	2·28	·67	16·96	13·50	2·66	·66	16·82
Injury at Birth ...	2·28	·28	·04	2·60	2·67	·21	·02	2·90
Other Diseases of early Infancy ...	2·24	·27	·13	2·64	2·55	·25	·09	2·89
All Other Causes ...	·36	·45	3·49	4·30	·53	·42	3·11	4·06
Total ...	23·22	7·12	26·18	56·52	23·78	7·38	25·47	56·63

* See foot-note to Table on page 301.

In 1929 there was little difference between most of the rates of mortality in the metropolis and those for the whole State. The death rate from premature birth was slightly higher, and the rate from diarrhoea and enteritis was lower in the metropolis than in the whole State. The deaths from these two causes combined represent nearly 42 per cent. of the deaths of infants during 1929.

Approximately 85 per cent. of the deaths during the first week after birth and 70 per cent of the deaths which occurred during the first year after birth were due to exclusively pre-natal causes or accident, viz., premature birth, congenital debility, malformation, injury at birth, or syphilis. Deaths from these causes during the first year of life represented 2·9 per cent. of the births during the year. The incidence of diarrhoea and enteritis was comparatively light among children under the age of one month.

Infantile Mortality in Divisions.

The following table shows the number of deaths of infants under 1 year of age from principal diseases per 1,000 births in the principal divisions of the State, based on the experience of the years 1915-24, being the first ten years for which the data are available. The variation shown in the mortality-rate is from 49.7 in the Northern Tableland to 103.4 in the Western Division.

Cause of Death.	Metropolis.	Balance of Cumberland.	North Coast.	Hunter and Manning.	South Coast.	Northern Tableland.	Central Tableland.	Southern Tableland.	North-Western Slope.	Central-Western Slope.	South-Western Slope.	North-Central Plain.	Central Plain.	Riverina.	Western Division.	Total Country.	Whole State
Epidemic Diseases	3.5	3.3	2.3	3.1	2.7	4.2	4.2	5.2	3.2	3.4	3.1	3.2	2.4	3.2	6.8	3.4	3.5
Tubercular Diseases	4	3	3	3	3	3	3	3	5	3	3	3	3	3	3	3	4
Veneral Diseases	6	5	3	3	1	2	2	1	1	3	1	1	2	2	5	3	4
Meningitis	5	2	5	7	4	3	7	6	6	5	7	10	7	4	5	6	6
Convulsions	1.0	2.0	2.0	1.8	2.1	1.7	2.1	1.8	2.4	2.4	1.9	9	2.6	1.1	3.1	2.0	1.6
Bronchitis	1.1	1.2	9	1.9	1.9	2.5	2.4	2.6	2.1	2.2	1.4	2.9	1.6	1.3	1.9	1.8	1.5
Pneumonia and Pleurisy	5.7	4.6	4.6	4.6	5.1	4.0	5.6	4.4	4.7	3.8	4.1	4.1	5.7	5.6	4.5	4.7	5.1
Gastritis and Diarrhoea	16.4	10.6	7.8	16.1	9.8	9.0	13.9	14.1	10.9	12.7	10.4	13.5	12.1	10.5	36.0	13.0	14.3
Hernia	5	3	5	4	7	4	5	8	1.1	6	4	3	9	6	1.0	5	5
Congenital Malformations	4.4	3.7	3.9	3.3	3.0	4.0	4.4	2.8	4.1	2.6	3.7	2.5	2.4	2.6	4.5	3.5	3.9
Congenital Debility and Prematurity	24.5	20.6	19.5	25.8	22.2	19.3	25.5	26.8	25.0	23.3	20.8	24.1	29.0	17.7	32.0	23.2	23.7
Other Developmental Diseases	4.4	3.7	5.6	4.6	6.1	4.9	4.9	6.3	4.6	4.6	4.6	5.5	5.2	5.7	4.0	4.9	4.7
Accident	5	8	6	7	7	3	6	8	4	1.1	7	1.2	1.5	1.1	1.5	8	6
All other Diseases	2.3	1.8	2.4	2.1	2.7	2.5	2.6	2.9	1.7	3.1	2.5	1.6	3.1	2.7	2.7	2.4	2.3
Total	65.8	53.6	51.2	65.7	57.8	53.6	63.0	69.4	61.4	60.7	54.7	61.2	67.7	53.3	99.8	61.4	63.1

Medical opinion is that a favourable summer rainfall reduces the liability to infantile diarrhoea, that premature birth and congenital debility are more prevalent in industrial districts than elsewhere, and that rural districts are most favourable to the rearing of children.

These opinions are borne out in a general way by the experience in New South Wales, although the wide range of geographical conditions and the variableness of the seasons intrude irregular factors affecting infantile mortality. The highest rate is that of the Western Division, the greater part of whose population lives in the mining district of Broken Hill, while the remainder is scattered over extensive plains which receive a low rainfall. The most favourable rates are those of the North Coast, Riverina, Northern Tablelands and South-western Slopes, where the population is engaged largely in rural pursuits. On the North Coast and Northern Tableland the rainfall is copious, especially during the summer. The rates of infantile mortality in the North Coast division present a striking contrast with those of the other coastal divisions, where large industrial and mining centres exist, and the rainfall is less favourable in the summer. The low rate for balance of Cumberland is probably due in a small measure to the removal of sick children to hospital or other accommodation in the metropolis, where an appreciable proportion of the deaths occur.

It is difficult to explain the high average rate of mortality in the Southern Tableland, which is due mainly to deaths from congenital debility, prematurity and other developmental diseases, gastritis and diarrhoea. Perhaps some part of the mortality may be attributable to the greater cold experienced in winter, the comparative lowness of the summer rainfall and the presence of a considerable proportion of the population in urban centres.

A further dissection of the proportion of deaths in 1929 from principal causes in geographical and industrial divisions gave the following interesting results.

Divisions.	Deaths of Children under 1 year of Age per 1,000 Births (1929).								
	Epidemic Diseases.	Bronchitis.	Pneumonia.	Diarrhoea and Enteritis.	Malformations.	Congenital Debility.	Premature Birth.	All Other Diseases.	All Diseases.
Metropolis* ...	5.42	.85	7.34	6.44	4.52	4.16	16.96	10.83	56.52
Country Municipalities ...	4.52	.92	6.70	9.31	6.63	4.94	19.34	13.62	65.98
Country Shires ...	2.97	1.05	6.25	5.57	3.53	3.78	14.42	11.02	48.59
New South Wales ...	4.42	.93	6.84	6.95	4.78	4.25	16.82	11.64	56.63
Industrial ...	5.18	.82	7.38	7.49	5.03	4.29	17.41	11.44	59.04
Non Industrial ...	3.64	1.04	6.27	6.38	4.53	4.22	16.21	11.84	54.13

* See foot-note to Table on page 301.

Deaths of Ex-nuptial Children under 1 year.

During 1929 there were born 49,952 nuptial and 2,720 ex-nuptial children. During the same period the deaths of nuptial children under 1 year of age numbered 2,711 and of ex-nuptial children 272.

During the first year of life the death rate of ex-nuptial children was double the rate for nuptial children, partly owing to premature birth, infantile debility and inherited diseases, but to an equally great extent to causes arising from neglect.

How these combined causes operate to produce a comparatively high death rate among ex-nuptial children is shown in the following table which relates to the years 1928 and 1929:—

Age at Death.	Deaths per 1,000 Births, 1928.				Deaths per 1,000 Births, 1929.			
	Nuptial.	Ex-nuptial.		Total.	Nuptial.	Ex-nuptial.		Total.
		Rate.	Per cent. of Legitimate Rate.			Rate.	Per cent. of Legitimate Rate.	
Under 1 week...	22.7	31.8	140	23.2	23.3	32.3	139	23.8
1 week ...	2.7	5.2	193	2.9	3.5	4.8	137	3.6
2 weeks ...	1.7	1.8	106	1.7	1.7	3.3	194	1.8
3 ,, ...	1.5	3.0	200	1.5	2.0	2.2	110	2.0
Total— under 1 month	28.6	41.8	146	29.3	30.5	42.6	140	31.2
1 month ...	2.5	8.9	356	2.8	3.3	10.3	312	3.6
2 months ...	2.8	7.7	275	3.1	2.5	8.8	352	2.8
3 ,, ...	2.1	7.7	367	2.4	2.5	5.1	204	2.6
4 ,, ...	2.3	9.2	400	2.6	2.0	6.6	330	2.2
5 ,, ...	1.9	5.9	311	2.1	1.9	7.7	405	2.1
6 ,, ...	2.2	4.1	186	2.3	2.2	5.1	232	2.4
7 ,, ...	2.1	3.7	176	2.1	1.9	1.8	95	1.9
8 ,, ...	2.2	3.7	168	2.2	1.8	3.3	183	1.9
9 ,, ...	1.6	2.6	163	1.7	1.8	2.9	161	1.9
10 ,, ...	2.0	1.5	75	2.0	1.9	1.5	79	1.9
11 ,, ...	2.1	3.7	176	2.2	1.9	4.3	226	2.1
Total— under 1 year...	52.4	100.5	192	54.8	54.2	100.0	184	56.6

The number of ex-nuptial children who die during one year is comparatively small, consequently the annual rates of mortality for such children in age groups under one year are unstable.

The largest proportional excess of deaths of ex-nuptial children over those of nuptial children is not immediately after birth, but usually one month or more later. During the year 1929, the mortality of ex-nuptial children exceeded that of other children by 39 per cent. during the first week of life, by 40 per cent. in the first month, and by 212 in the second. In the third month the rate was $3\frac{1}{2}$ times, and in the three succeeding months 2 to 4 times the rate for nuptial children.

The following table shows the number of births and deaths and the rate per 1,000 births of ex-nuptial as compared with those of nuptial children in New South Wales during the years shown.

Year.	Total Births.		Deaths under 1 month.				Deaths under 1 year.			
			Nuptial.		Ex-Nuptial.		Nuptial.		Ex-Nuptial.	
	Nuptial.	Ex-Nuptial.	No.	Rate per 1,000 Births.	No.	Rate per 1,000 Births.	No.	Rate per 1,000 Births.	No.	Rate per 1,000 Births.
1901	35,163	2,712	*	*	*	*	3,213	91.37	716	264.01
1906	38,066	2,882	1,116	29.32	146	50.66	2,527	66.38	525	182.16
1911	44,728	2,949	1,396	31.21	138	46.80	2,877	64.32	436	147.85
1916	49,574	2,501	1,520	30.66	137	54.78	3,168	63.90	365	145.94
1921	51,961	2,673	1,567	30.16	115	43.02	3,134	60.31	302	113.07
1926	50,378	2,748	1,490	29.58	145	52.77	2,758	54.75	302	109.90
1927	51,165	2,693	1,471	28.75	128	47.53	2,678	52.34	282	104.72
1928	52,093	2,707	1,490	28.60	113	41.74	2,732	52.44	272	100.48
1929	49,952	2,720	1,526	30.55	116	42.61	2,711	54.27	272	100.00

* Not available.

The table shows that whilst the ex-nuptial death rates are uniformly high compared with the nuptial rates, they have improved considerably in the period covered by the table. In 1901, one out of every four ex-nuptial children died within a year of birth; the rate in 1929 was one in ten.

Deaths of Children under 5 years.

The improvement in rates of mortality has not been confined to children under 1 year of age, as there has been a general improvement in the death-rate of all groups of children under 5 years of age.

The following table shows the mortality of children under 5 years of age:—

Period.	Metropolis.*		Remainder of State.		New South Wales.	
	Average Annual Number of Deaths.	Rate per 1,000 Living.	Average Annual Number of Deaths.	Rate per 1,000 Living.	Average Annual Number of Deaths.	Rate per 1,000 Living.
1890-94	2,674	48·5	3,546	32·1	6,220	37·5
1895-99	2,206	40·8	3,487	31·0	5,693	34·2
1900-04	1,846	35·2	3,210	29·6	5,056	31·4
1905-09	1,612	27·6	2,723	23·4	4,335	24·8
1910-14	1,895	26·1	2,986	21·5	4,881	23·1
1915-19	1,905	21·5	2,771	17·8	4,676	19·1
1920-24	1,887	20·3	2,631	17·2	4,518	18·4
1925	1,651	16·3	2,309	14·6	3,960	15·3
1926	1,783	17·7	2,336	14·7	4,119	15·8
1927	1,567	15·4	2,444	15·6	4,011	15·5
1928	1,461	14·2	2,641	17·0	4,102	15·9
1929	1,785	16·3	2,371	16·2	4,156	16·2

* Area increased in 1929. See foot-note to Table on page 301.

At every period shown up to 1927 the metropolitan rate was higher than that of the remainder of the State. The excess was very small in 1924, when there was a marked improvement in the metropolitan rate. In 1925 the rates in both divisions were the lowest on record. In the following year the country rate remained low and the metropolitan rate increased by 8·6 per cent. and was 22 per cent. higher than the country rate. The comparison of the deaths and rates in the metropolis and the remainder of the State for 1927, 1928 and 1929 with previous years has been impaired on account of the distribution of deaths during these years to the usual place of permanent residence, and an alteration in the respective boundaries in 1929.

On the whole the improvement in the metropolis has been greater than in the remainder of the State, the rate having decreased since 1890 by 66 per cent. in the former, and in the latter by 50 per cent. Outside the metropolis the rate did not vary until 1904, when there was a marked decline, which has been continuous. The rate of mortality in 1929, compared with that of the quinquennium 1890-94, represents a saving of 32 lives in every 1,000 children under 5 years of age in the metropolis, and of 16 in the remainder of the State.

Children are more susceptible to the attacks of disease in the earliest years of life than later, and the death rate decreases steadily until the age of 10 years is reached. Since the rate for preventable diseases is high, there is no doubt that many children succumb through parental ignorance of the proper food or treatment required.

In the following statement the principal causes of death among children, and the rates under 1 year of age per 1,000 births and under 5 years of age

per 1,000 living, are shown for a period of five years, viz., 1919-1923, embracing the census year and two years on either side of it:—

Causes of Death.	Deaths of children under 1 year of age.				Deaths of children age 1 year and under 5.			
	Metropolis.		State.		Metropolis.		State.	
	Average Annual Number.	Per 1,000 Births.	Average Annual Number.	Per 1,000 Births.	Average Annual Number.	Per 1,000 Living.	Average Annual Number.	Per 1,000 Living.
Measles	6	·3	13	·2	28	·40	46	·24
Scarlet Fever .. .. .	..	..	..	..	2	·03	5	·02
Whooping-cough	43	2·0	110	2·1	34	·48	71	·37
Diphtheria and Croup	10	·5	20	·4	56	·79	147	·77
Influenza	13	·6	31	·6	24	·35	51	·27
Epidemic Cerebro-Spinal Meningitis.	2	·1	3	·1	2	·03	6	·03
Tuberculosis—Meninges	5	·2	10	·2	18	·26	26	·13
„ Abdominal .. .. .	..	..	2	·1	2	·03	5	·02
„ Other Organs	2	·1	5	·1	7	·10	12	·06
Syphilis	13	·6	20	·4	1	·01	2	·01
Meningitis	12	·6	31	·6	14	·20	28	·15
Convulsions	18	·8	71	1·3	7	·09	24	·12
Bronchitis	23	1·1	72	1·3	4	·06	21	·11
Broncho-pneumonia	84	3·9	183	3·5	53	·76	116	·61
Pneumonia	88	1·8	87	1·6	38	·55	82	·43
Diarrhoea and Enteritis	381	17·7	786	14·8	121	1·72	326	1·76
Congenital Malformations	100	4·6	209	3·9	102	1·45	281	1·47
Infantile Debility	123	5·7	337	6·3				
Premature Birth	394	18·3	917	17·2				
All Others	181	8·4	486	9·1				
Total	1,448	67·3	3,399	63·8	513	7·31	1,249	6·51

The high mortality of infants, especially in the first week of life, during this period was largely due to the deaths of children who, either from immaturity or inherited debility, are born unfit for the struggle for existence. Of children under 1 year of age, the deaths from these causes during the period 1919-23 were equal to 27·4 per 1,000, or 43 per cent. of the total deaths of children under 1.

Among children under 1 year, diarrhoea and enteritis were responsible for 14·8 deaths per 1,000 births, and infectious diseases for 3·4, of which whooping-cough caused 2·1. Respiratory diseases are especially fatal to infants; among children under 1 year of age bronchitis caused 1·3, broncho-pneumonia 3·5, and pneumonia 1·6 deaths per 1,000 births. The death-rate from convulsions in the same group was 1·3, from tuberculous diseases 0·4, and meningitis (not tuberculous) 0·6 per 1,000 births.

The rate of mortality among children between 1 and 5 years of age is only about one-tenth of the rate among children under one year of age, but in both cases the largest individual cause of death among post-natal causes is diarrhoea and enteritis. Among the older group of children the next most prominent causes of death are epidemic diseases, notably diphtheria, croup, whooping-cough, influenza and measles, while diseases of the respiratory system, such as pneumonia and bronchitis, cause rather more than one-sixth of the deaths.

CAUSES OF DEATH.

The system of classification adopted in this section of vital statistics is in accordance with the International List of Causes of Death, based on the third decennial revision by the International Commission at Paris in 1920.

The complete list of causes of death grouped as arranged by the International Commission is published in the Statistical Register of New South Wales, which shows the number of deaths from each cause according to age, sex, and month of occurrence.

The table published below is a summary of the principal individual causes of death in 1929 compared with the average annual number in the period 1924-28, adjusted to the population of the year 1929.

Causes of Death.	Num- ber, 1929.	Adjusted Avera- ge, 1924-8.		Causes of Death.	Num- ber, 1929.	Adjusted Avera- ge, 1924-28.	
		Num- ber.	Propor- tion.			Num- ber.	Propor- tion.
Typhoid Fever	45	82	.35	Other Diseases of the Cir- culatory System	86	88	.38
Measles	66	72	.31	Bronchitis	508	448	1.93
Scarlet Fever	78	69	.30	Pneumonia	2,216	1,761	7.60
Whooping-cough	212	181	.78	Other Diseases of the Re- spiratory System	327	304	1.31
Diphtheria and Croup	215	178	.77	Diseases of the Stomach... Diarrhoea and Enteritis	136	161	.69
Influenza	541	254	1.09	(under 2 years)... ..	474	736	3.18
Plague ... ..	...	...	...	Diarrhoea and Enteritis	167	212	.92
Erysipelas	57	37	.16	(2 years and over)	216	193	.83
Infantile Paralysis	17	6	.03	Appendicitis	217	217	.94
Lethargic Encephalitis	30	29	.12	Hernia, Intestinal Obstruc- tion	111	116	.50
Epidemic Cerebro-spinal Meningitis	10	22	.09	Cirrhosis of the Liver	396	362	1.56
Other Epidemic Diseases	51	60	.26	Other Diseases of the Di- gestive System	1,367	1,211	5.29
Tuberculosis, Respiratory System	1,151	1,177	5.08	Bright's Disease (Acute and Chronic)	469	391	1.69
Tuberculosis Meninges and Nervous System	65	54	.23	Other Genito-Urinary Di- seases	79	92	.40
Other Tuberculous Di- seases	91	82	.35	Puerperal Septicæmia	199	241	1.04
Cancer	2,322	2,301	9.93	Other Puerperal Diseases	269	262	1.15
Diabetes	315	296	1.28	Malformations	224	274	1.18
Leucæmia, Anæmia, Chlor- osis	174	215	0.93	Congenital Debility	886	912	3.94
Other General Diseases	560	549	2.37	Premature Birth	310	316	1.36
Meningitis	181	171	.74	Other Developmental Di- seases	1,050	1,067	4.60
Cerebral Hæmorrhage and Apoplexy*	854	940	4.06	Senility	301	290	1.25
Insanity	95	116	.50	Suicide	1,431†	1,303	5.62
Convulsions of Infants	30	57	.24	Accident	335	435	1.87
Other Diseases of the Ner- vous System*	679	692	2.99	All Other Causes	24,615	23,164	100.00
Diseases of the Heart	4,102	3,547	15.31				
Diseases of the Arteries, Atheroma, &c.*	900	585	2.52				

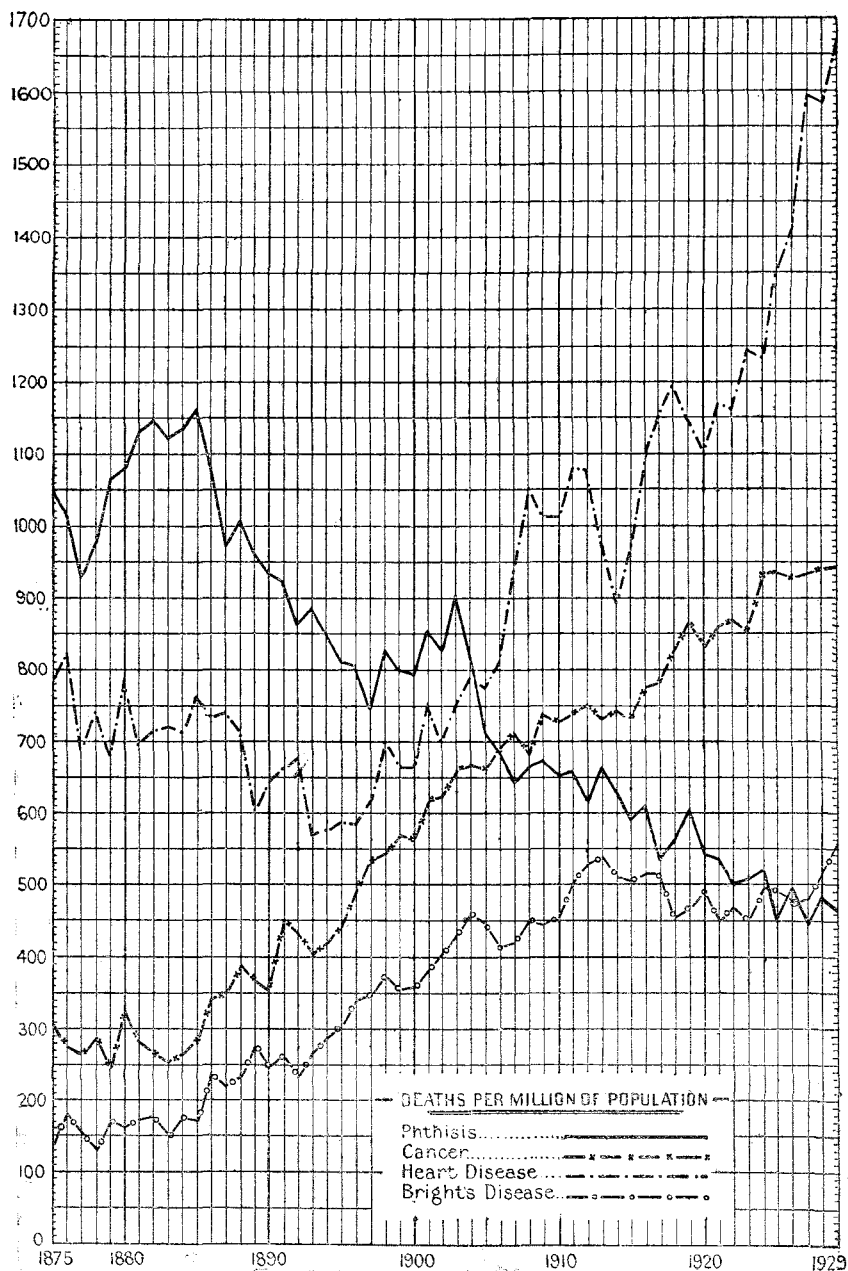
* See paragraph below, "Cerebral Hæmorrhage."

† Includes 478 from motor accidents.

Generally speaking, the mortality from tuberculosis of the respiratory system, bronchitis, diarrhoea and enteritis, diphtheria and typhoid fever is decreasing, while that from diseases of the heart, cancer, and accidents is increasing. The mortality from Bright's disease increased steadily until 1917, from 1918 to 1924 there appeared to have been a slight decline, but since that year there has been an appreciable increase. In the case of cerebral hæmorrhage and diseases of the arteries the figures for 1929 are not comparable with those of the previous quinquennium, because arterio sclerosis combined with any cerebral vascular lesion has been classified as a disease of the arteries since 1928, whereas it was included previously with deaths from cerebral hæmorrhage.

The figures in the above table cannot be compared as absolute numbers of the same relative importance because of the limitations of a system of classification depending upon a large number of independent observers with varying degrees of diagnostic equipment, and again because the age incidence is very different for the several diseases. Some diseases of the heart and diseases of the arteries, etc., affect persons of advanced years, and from the standpoint of rate of natural increase are relatively less important than are diseases like tuberculosis and pneumonia, which cause heavy mortality between ages 20 and 65. The heading senility is unsatisfactory, as it embraces mainly the deaths of aged persons in respect of whom the cause of death is not definitely stated in the returns. Many deaths of aged persons formerly attributed to senility are now ascribed to some form of heart disease, with the result that deaths from senility, so described, have shown a considerable decrease.

DEATH RATES—PRINCIPAL DISEASES—1875-1929.



Interesting features of the table are that 12.1 per cent. of all deaths in the quinquennium 1924-28 were due to the following diseases:—Diarrhoea and enteritis (under 2 years), malformations, diseases of infancy, whooping cough, convulsions of infants, measles, and infantile paralysis, whose incidence is entirely or almost entirely limited to early childhood. Of the remaining

deaths, more than half are due to a limited number of major causes, of which cancer, pneumonia, tuberculosis, and Bright's disease are most prominent.

In the pages which follow the experience in respect of a number of individual diseases is traced. Where the period covered is of considerable length, due allowance must be made for the effect of improvements in methods of diagnosis and classification and the general advance of medical knowledge. In some cases these factors have exercised a considerable influence upon the trend of the figures.

Reliable statistics are not available to show the number of cases of the various diseases occurring annually, but statistics have been collected of the occurrence of communicable diseases among school children since 1913. These show that epidemics of such diseases as measles, whooping-cough, scarlet fever, and diphtheria are of periodical recurrence, and, from time to time, assume large proportions. Although approximately 80 per cent. of the deaths from these diseases are among children under school age, it is observed that the rate of mortality from these diseases rises and falls with the recurrence of epidemics among school children. Statistics of the occurrence of infectious diseases among school children are collected quarterly, with the object of facilitating steps towards preventive and remedial measures.

Typhoid Fever.

Typhoid fever is a preventable disease, and does not obtain a foothold where a proper system of sanitation has been installed and ordinary health precautions have been taken; a great improvement has been attained in these respects during the last four decades, and the mortality from typhoid, which was formerly heavy, has been reduced to very small proportions. A steady improvement is still apparent.

The number of deaths from typhoid fever, and the equivalent annual rates of mortality since 1884, are stated below.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	1,356	5.12	1,115	5.13	2,471	5.13
1889-93	959	3.11	714	2.74	1,673	2.94
1894-98	1,107	3.27	731	2.46	1,838	2.89
1899-1903	1,054	2.93	733	2.25	1,787	2.61
1904-08	748	1.93	507	1.42	1,255	1.69
1909-13	773	1.75	464	1.15	1,237	1.47
1914-18	569	1.17	330	0.71	899	0.95
1919-23	353	0.66	241	0.47	594	0.56
1924	57	0.57	40	0.32	97	0.43
1925	58	0.50	22	0.20	80	0.35
1926	43	0.36	37	0.32	80	0.34
1927	47	0.39	21	0.18	68	0.29
1928	40	0.32	20	0.17	60	0.25
1929	23	0.18	22	0.18	45	0.18

The rate of mortality from typhoid fever in 1929 represents only 18 persons per million living. This rate is 68 per cent. below that of the quinquennium 1919-23.

The decrease in the number and proportion of deaths due to this disease after 1888 was very marked, and may be traced to the operation of the Dairies Supervision Act, which became law in 1889. The rates show a further marked improvement as from 1903, and have dropped regularly, until that for 1929 was only 4.9 per cent. of the rate for the period 1884-88. The rate is considerably higher than that experienced in England and Wales, where during 1928 it was only 11 per million living.

Owing to a superior system of sewerage and to the greater attention given to sanitary inspection and garbage disposal, the rate of mortality from typhoid fever in the metropolis has almost invariably been very much lower than that of the remainder of the State, though it was higher during 1919, and only slightly lower in 1922. The following table provides a comparison of the experience in the metropolis and remainder of the State since 1894. Owing to the incidence of mild epidemics the rates of mortality fluctuate from year to year, and though both are improving, the improvement in recent years has been more marked in the metropolis.

Period.	Metropolis.*		Remainder of State.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1894-98	507	2.26	1,331	3.24
1899-1903	426	1.72	1,361	3.12
1904-08	334	1.21	921	1.97
1909-13	363	1.10	874	1.70
1914-18	319	0.81	580	1.04
1919-23	233	0.51	361	0.61
1924	22	0.22	75	0.61
1925	32	0.31	48	0.38
1926	23	0.22	57	0.44
1927	19	0.18	49	0.38
1928	15	0.13	45	0.34
1929	11	0.09	34	0.28

* Area increased in 1929. See foot-note to Table on page 301.

Most deaths from typhoid fever occur during the summer and autumn. In 1929 there were 16 deaths during the summer months of December, January, and February, and 17 during the autumn months of March, April, and May; making a total of 33 out of 45 in the whole year.

Smallpox.

There has been no death from smallpox in New South Wales since the year 1915.

Vaccination is not compulsory in this State, and the precaution is rarely adopted unless epidemics threaten, as in the year 1913, when about 425,000 persons voluntarily submitted themselves to vaccination.

Measles.

Although measles is a common complaint, the resultant mortality is comparatively very small. The following statement shows the deaths from this cause, and the rate for each sex.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	166	0.63	165	0.76	331	0.69
1889-93	393	1.28	369	1.41	762	1.34
1894-98	338	1.00	324	1.09	662	1.04
1899-1903	160	0.44	219	0.67	379	0.55
1904-08	82	0.21	107	0.30	189	0.25
1909-13	309	0.70	267	0.66	576	0.68
1914-18	301	0.62	221	0.48	522	0.55
1919-23	207	0.39	183	0.35	390	0.37
1924	19	0.17	17	0.16	36	0.16
1925	13	0.11	17	0.15	30	0.13
1926	49	0.41	41	0.36	90	0.39
1927	8	0.07	12	0.10	20	0.09
1928	88	0.70	74	0.62	162	0.67
1929	38	0.30	28	0.23	66	0.27

The high rates during the second and third quinquennial periods were due to severe outbreaks in 1893 and 1898.

Measles is a disease chiefly affecting children, and is periodically epidemic. It was epidemic in 1898-9, when 719 deaths were recorded; in 1912, when there were 371 fatal cases; and in 1915, when there were 324. During the year 1929 deaths from measles among children under 1 year of age numbered 24, and among children under 5 years of age 52. The total number of deaths in this year was 66.

According to returns obtained by the Department of Education, there were extensive epidemics of measles among school children in 1918, 1920, and 1923, and although these epidemics (particularly that of 1923) were more widespread than the outbreak of 1915, the mortality recorded was very much less.

Scarlet Fever.

In 1929 the number of deaths from this disease was 78, equivalent to a rate of 0.32 per 10,000 of the population. In 1928 the corresponding number and rate were 105 and 0.43 respectively. Of the number of deaths in 1929 there occurred in the metropolis 45, and in the remainder of the State 33, showing rates of 0.37 and 0.27 per 10,000 for the respective divisions. The rate of mortality from this cause during 1929 was 26 per cent. below that of the previous year, but was 14 per cent. above the rate of the preceding quinquennium, which was a period of very favourable experience. Since 1884 the deaths from scarlet fever and the rates for each sex have been as follow:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	287	1.08	342	1.57	629	1.30
1889-93	185	0.60	236	0.90	421	0.74
1894-98	162	0.48	218	0.73	380	0.60
1899-1903	84	0.23	114	0.35	198	0.29
1904-08	88	0.23	91	0.26	179	0.24
1909-13	41	0.09	57	0.14	98	0.12
1914-18	112	0.23	161	0.35	273	0.29
1919-23	34	0.06	38	0.07	72	0.07
1924	11	0.10	18	0.16	29	0.13
1925	9	0.08	18	0.16	27	0.12
1926	28	0.24	25	0.22	53	0.23
1927	48	0.40	65	0.56	113	0.48
1928	46	0.37	59	0.50	105	0.43
1929	30	0.24	48	0.40	78	0.32

Like measles, scarlet fever is an epidemic disease which mainly affects children, the rate generally being somewhat higher for females than for males. During 1929, 52 of the 78 deaths were of children under 10 years of age, and of these 24 were males and 28 females. Though not nearly so fatal as formerly, its sporadic recrudescence demands constant vigilance on the

part of the authorities responsible for the health of the State. The death-rate from this cause of mortality has fluctuated since the year 1884, when it was very heavy, the rate per 10,000 inhabitants having ranged from 2·59 in that year to 0·04 in 1921.

Scarlet fever was epidemic among school children in 1915 and 1916, in which years 205 deaths were recorded in the State from this disease. Rather more extensive outbreaks occurred among school children in 1927 and 1928, and the total number of deaths from scarlet fever in these two years was 218.

Whooping-cough.

Whooping-cough is another disease which mainly affects children, and to which, like scarlet fever, females are more susceptible than males. The number of deaths and rates of mortality for each sex since 1884 are shown below.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	327	1·24	472	2·17	799	1·66
1889-93	495	1·61	666	2·55	1,161	2·04
1894-98	343	1·01	502	1·69	845	1·33
1899-1903	573	1·59	726	2·23	1,299	1·90
1904-08	369	0·95	445	1·25	814	1·10
1909-13	377	0·86	436	1·09	813	0·97
1914-18	335	0·69	382	0·82	717	0·75
1919-23	440	0·82	497	0·96	937	0·89
1924	42	0·37	41	0·38	83	0·37
1925	138	1·19	185	1·66	323	1·42
1926	67	0·57	65	0·55	132	0·57
1927	96	0·79	115	0·99	211	0·89
1928	47	0·38	56	0·47	103	0·42
1929	90	0·72	122	1·01	212	0·86

Whooping-cough may justly be regarded as a permanent menace and a constantly recurring ailment of infancy and childhood, for the table shows that periods of decline have generally been followed by increases in the death-rate, which is maintained by epidemic outbreaks, one such occurring in 1907, when 594 cases proved fatal, and the death-rate was the highest since 1878. An examination of the table on a later page showing the seasonal prevalence of diseases indicates that whooping-cough is most fatal during the months of January, September, and December.

Epidemics of whooping-cough among school children are only second in magnitude to those of measles. The records show that, during the past sixteen years, this disease has affected large numbers of school children every year and that virulent epidemics occurred in 1913, 1920, 1921, and 1925. The total number of deaths from whooping-cough in these years was 344, 369, 257, and 323 respectively.

Diphtheria and Croup.

As causes of death these diseases decreased in importance between 1884 and 1904. During the next ten years there was a slight increase in mortality, but the years which have since elapsed have shown an appreciable decline.

Diphtheria and croup, under which heading membranous laryngitis is included, caused 215 deaths in 1929. Deaths from these diseases in the metropolitan area numbered 98, and those in the remainder of the State, 117, the respective rates per 10,000 living for each division being 0.80 and 0.95. The following table shows the number of deaths and the rates since 1884:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	1,069	4.04	980	4.51	2,049	4.25
1889-93	1,433	4.65	1,399	5.36	2,832	4.98
1894-98	712	2.10	710	2.39	1,422	2.24
1899-1903	310	0.86	299	0.92	609	0.89
1904-08	367	0.95	338	0.95	705	0.95
1909-13	604	1.37	640	1.59	1,244	1.48
1914-18	659	1.36	682	1.47	1,341	1.41
1919-23	583	1.09	509	0.99	1,092	1.04
1924	101	0.89	124	1.13	225	1.01
1925	61	0.53	58	0.52	119	0.52
1926	87	0.74	60	0.53	147	0.64
1927	99	0.82	80	0.69	179	0.75
1928	100	0.81	72	0.61	172	0.71
1929	103	0.81	112	0.92	215	0.87

Mortality from diphtheria was heaviest during two lengthy periods, viz., from 1881 to 1898, and omitting the year 1919, from 1909 to 1921, although the rate was much lower in the latter period than in the former. During the past sixteen years diphtheria was most prevalent among school children in 1913 and 1921, but considerable numbers of cases were recorded in other years, the numbers fluctuating from year to year in close sympathy with those of whooping-cough.

The experience of the quinquennial period 1925-29 shows the disease to be most fatal during the months of April, May, and June. Ninety-four per cent. of the persons who died from diphtheria during 1929 were under 10 years of age, and about 80 per cent. were under 5 years of age.

Since the year 1923 the Department of Public Health has investigated the Schick test for determining susceptibility to diphtheria. At 2 years of age, about 70 per cent. of children are liable to contract the disease, the susceptibility diminishing with age. Roughly, 30 per cent. of children tested between ages 5 and 15 were found to be susceptible. It is claimed that

lasting immunity can be achieved by a simple and inexpensive inoculation, and that diphtheria can be eradicated by the properly enforced application of this provision. Although, as noted above, considerable improvement in the rate of mortality from diphtheria and croup has been effected since 1898, it still remains high.

Influenza.

During 1929 there were 541 deaths due to influenza, the rate of mortality being above the average of the previous quinquennium. Prior to 1891 the average annual number of deaths was 44, but during that year 988 deaths occurred from this cause. From 1892 to 1917 the average number of deaths was 198, but in 1918 an outbreak resulted in 372 deaths. This was completely overshadowed by the disastrous epidemic in 1919, when 6,387 persons died from the disease. An examination of the experience of that year will be found in the 1920 issue of this Year Book.

In the following table the deaths at each outbreak are shown together with those in the intervening periods:—

Period.	Deaths.			Annual Rate per 10,000.
	Male.	Female.	Total.	
1875-1890	388	322	710	0·53
1891	549	439	988	8·65
1892-1917	2,799	2,397	5,196	1·27
1918	218	154	372	1·91
1919	3,851	2,536	6,387	31·93
1920	132	127	259	1·25
1921	204	195	399	1·89
1922	124	98	222	1·03
1923	268	243	511	2·33
1924	136	125	261	1·17
1925	76	67	143	0·63
1926	172	145	317	1·37
1927	126	105	231	0·97
1928	127	120	247	1·02
1929	293	248	541	2·20

Prior to 1919 influenza was essentially a disease fatal to young children and persons past 45 years of age, but in the severe world-wide epidemic of that year the disease was most fatal to persons in the prime of life (25 to 44 years). Comparing the deaths since 1921 with those of 1918 and 1919 in age groups representing approximately the different stages of life, it will be seen that the character of the disease is reverting to the type experienced prior to 1919.

Age Group.	Deaths per cent. of Total.								
	1918.	1919.	1921.	1924.	1925.	1926.	1927.	1928.	1929
Under 10 ...	13	6	11	10	19	6	13	9	8
10-24 ...	8	12	6	5	9	8	6	8	6
25-44 ...	15	53	27	18	19	16	21	20	18
45-64 ...	17	22	27	25	24	24	28	30	26
65 and over ...	47	7	29	42	29	46	32	33	42
Total ...	100	100	100	100	100	100	100	100	100

Tuberculous Diseases.

The number of deaths ascribed to the several classified forms of tuberculous diseases during 1929 was 1,307, or 5·3 per cent. of the actual mortality in the State, and equal to 5·3 per 10,000 living—a rate slightly below the average for the preceding quinquennium.

A comparison of death-rates from tuberculous diseases in the Australian States and New Zealand for the last seven years is given below. The rates are stated per 1,000 of the total population, and do not take account of differences in the distribution of age and sex in the respective populations, which have a material influence on the rates.

State.	Death-rate from tuberculous diseases per 1,000 of Total Population.						
	1923.	1924.	1925.	1926.	1927.	1928.	1929.
New South Wales ...	0·56	0·56	0·51	0·55	0·50	0·54	0·53
Victoria ...	0·74	0·70	0·66	0·63	0·65	0·66	0·59
Queensland ...	0·46	0·42	0·42	0·45	0·42	0·41	0·37
South Australia ...	0·71	0·72	0·70	0·70	0·63	0·59	0·60
Western Australia ...	0·66	0·68	0·78	0·72	0·65	0·62	0·68
Tasmania ...	0·75	0·76	0·64	0·62	0·69	0·65	0·59
Commonwealth ...	0·62	0·61	0·58	0·59	0·56	0·56	0·54
New Zealand ...	0·62	0·57	0·51	0·54	0·49	0·50	0·44

Mortality from tuberculous diseases is usually lower in New South Wales than in any other Australian State except Queensland.

Tuberculosis of the Respiratory System.

Tuberculosis of the respiratory system, or phthisis, was the cause of 1,151 deaths, or 88.1 per cent. of the number due to tuberculosis during the year 1929, being fifth in the order of magnitude among the fatal diseases of the State. The mortality rate per 10,000 living was slightly lower than in the previous year. The male rate in 1929 was 5.45 and the female rate 3.86.

The following table shows the number of deaths from tuberculosis of the respiratory system and the rates for each sex since 1884. This cause of death was formerly designated tuberculosis of the lungs:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	3,132	11·83	2,022	9·30	5,154	10·69
1889-93	3,269	10·61	1,925	7·38	5,194	9·13
1894-98	3,191	9·43	1,983	6·68	5,174	8·15
1899-1903	3,322	9·24	2,304	7·08	5,626	8·21
1904-08	2,985	7·72	2,184	6·13	5,169	6·96
1909-13	3,220	7·31	2,236	5·69	5,506	6·54
1914-18	3,373	6·95	2,194	4·72	5,567	5·86
1919-23	3,484	6·50	2,173	4·21	5,657	5·38
1924	702	6·17	463	4·24	1,165	5·22
1925	614	5·29	409	3·67	1,023	4·49
1926	691	5·84	453	3·98	1,144	4·93
1927	649	5·36	407	3·49	1,056	4·45
1928	681	5·50	485	4·08	1,166	4·81
1929	684	5·45	467	3·86	1,151	4·67

The general rate has decreased more than 50 per cent. in the period under review, that for females slightly more than that for males. The female rate ranges from 62 per cent. of the male rate in the year 1922 to 79 per cent. during the periods 1904-08 and 1884-88.

The improvement in the death-rate is due to many factors, such as the regulation of immigration, conditions of employment, etc., and the enforcement of the various Health Acts, but principally to the adoption of improved methods of medical treatment.

The table below shows the death-rates from tuberculosis of the respiratory system or phthisis according to age and sex in decennial periods since 1891.

Age Group. Years.	Deaths per 10,000 living—Phthisis.								
	Males.			Females.			Persons.		
	1891- 1900.	1901- 1910.	1911- 1920.	1891- 1900.	1901- 1910.	1911- 1920.	1891- 1900.	1901- 1910.	1911- 1920.
0-4	1.06	1.17	.68	.97	.97	.62	1.01	1.07	.66
5-9 .. ..	.34	.31	.18	.57	.39	.25	.45	.35	.21
10-14 .. .	.54	.62	.28	1.08	1.07	.59	.81	.79	.43
15-19 .. .	3.57	2.86	2.24	4.71	5.30	3.25	4.14	4.07	2.75
20-24 .. .	10.69	7.97	6.67	9.64	8.94	6.88	10.17	8.45	6.78
25-34 .. .	15.68	11.35	9.85	13.75	11.16	8.61	14.81	11.26	9.23
35-44 .. .	18.28	14.79	12.08	13.39	11.90	7.70	16.22	13.48	10.00
45-54 .. .	19.04	16.56	14.34	10.84	9.76	6.94	15.67	13.63	10.97
55-64 .. .	21.98	17.44	14.75	11.17	10.15	6.71	17.60	14.28	11.21
65-74 .. .	17.09	17.02	13.00	7.62	9.07	6.85	12.97	13.59	10.21
75 and over ..	4.67	7.45	6.19	2.44	4.64	4.01	3.73	6.19	5.16
All ages..	9.63	8.06	7.00	6.77	6.43	4.81	8.30	7.31	5.94

The decrease shown in female rates is slightly greater than that in male rates. The rates according to age, however, show a remarkable difference when the sexes are compared. For males the rates increase steadily until age 60 is approached, after which a rapid decrease is shown.

For females the rates reach their highest point in the age group 25-34, and do not decline in after life in any marked degree.

The rates for the whole population, while negligible under the age of 15 years, increase from that age to 25 years, and then remain practically constant until 75 is reached, after which age the rate drops quickly.

Pulmonary tuberculosis was notifiable only within the metropolis, in the area controlled by the Hunter District Water Supply and Sewerage Board, and in the Katoomba Municipality and Blue Mountains Shire, until March, 1929, when it became notifiable throughout the State.

Other Tuberculous Diseases.

Of the 1,307 deaths during 1929 from tuberculosis, only 156 were from tuberculosis of organs other than the lungs. The corresponding figures for 1928 were 1,166 and 151. For the year 1929, 59 deaths, equivalent to 38 per cent., were of children under 5 years of age. Taking the age group 0-4 years, and all ages, the following table shows the distinct improvement in the death-rates since the decennium 1891-1900:—

Period.	Deaths per 10,000 living—Tuberculosis other than Phthisis.					
	Ages 0 to 4 Years.			All Ages.		
	Males.	Females.	Total.	Males.	Females.	Total.
1891-1900	15.93	13.41	14.69	2.76	2.62	2.69
1901-1910	7.11	5.93	6.55	1.70	1.51	1.61
1911-1920	3.13	2.36	3.06	1.00	.86	.93
1921	2.29	1.96	2.16	.83	.58	.71
1922	1.36	2.39	1.87	.72	.57	.65
1923	1.72	1.29	1.51	.67	.51	.59
1924	1.62	0.35	1.29	.39	.43	.41
1925	1.29	1.64	1.47	.55	.56	.56
1926	1.97	1.64	1.85	.67	.55	.61
1927	1.67	1.57	1.62	.65	.45	.55
1928	1.90	1.34	1.62	.64	.51	.62
1929	2.60	1.93	2.30	.68	.58	.63

Cancer.

In 1929 the deaths from cancer numbered 2,322, equal to a rate of 9.42 per 10,000 living. The rate of mortality ruling since 1924 has been much higher than in any preceding period, the average for these five years being 9.34 per 10,000 living as compared with 3.30 for a similar period forty years previously. The total for 1929 included 1,224 males and 1,098 females, the rates being 9.75 and 9.08 per 10,000 living of each sex respectively.

Classified according to the parts of the body affected and arranged in order of fatality, cancer caused the following deaths in 1929:—Stomach and liver, 793; peritoneum, intestines, and rectum, 411; female genital organs, 235; breast, 193; buccal cavity, 136; skin, 84; and other organs, 470.

The following table shows the deaths and rates of each sex since 1884:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	859	3.25	732	3.37	1,591	3.30
1889-93	1,262	4.10	1,038	3.98	2,300	4.04
1894-98	1,719	5.09	1,387	4.68	3,106	4.89
1899-1903	2,295	6.38	1,877	5.77	4,172	6.09
1904-08	2,671	6.91	2,413	6.78	5,089	6.85
1909-13	3,362	7.63	2,860	7.12	6,222	7.39
1914-18	3,886	8.00	3,458	7.44	7,344	7.73
1919-23	4,738	8.84	4,292	8.32	9,030	8.58
1924	1,087	9.53	991	9.07	2,078	9.32
1925	1,163	10.02	970	8.79	2,133	9.37
1926	1,175	9.93	982	8.62	2,157	9.29
1927	1,169	9.66	1,041	8.94	2,210	9.31
1928	1,196	9.67	1,054	9.12	2,280	9.40
1929	1,224	9.75	1,098	9.08	2,322	9.42

In New South Wales the crude male rate is usually the higher, which is contrary to the experience of England and Wales, where the crude female rate is usually the higher. In the period 1911-1914 the standardised female rate in England was nearly 9 per cent. higher than the standardised male rate, but in 1922 and 1923 the standardised rates for both sexes were practically equal, and in 1924 the male rate was greater than the female rate for the first time on record. This change is attributed by the Registrar-General in his Annual Review to the operation of two factors which probably exercise some influence in New South Wales, viz.—(i) The success of operations upon the relatively more accessible cancers of females, and (ii) the better diagnosis of the less accessible cancers of females as a consequence of improved medical appliances and knowledge. In England and Wales, also, the combined crude rate is usually much higher, and is increasing more rapidly than in New South Wales. However, the standardised rate in England has shown only a slight increase since pre-war years.

The ages of the 2,322 persons who died from cancer in New South Wales during 1929 ranged from under one year to 97 years, but the disease is one of advanced age, 96 per cent. of the persons who died from cancer in 1929 being 35 years and over.

In the following table are shown the death-rates from cancer for each sex in age groups above 25 years, in decennial periods since 1891:—

Age Group. Years.	Deaths per 10,000 Living—Cancer.								
	Males.			Females.			Persons.		
	1891- 1900.	1901- 1910.	1911- 1920.	1891- 1900.	1901- 1910.	1911- 1920.	1891- 1900.	1901- 1910.	1911- 1920.
25-34	·94	·86	1·09	1·24	1·37	1·47	1·07	1·12	1·28
35-44	3·63	3·93	3·52	6·79	7·16	6·34	4·96	5·39	4·86
45-54	12·13	12·53	13·55	17·93	19·21	17·35	14·52	15·41	15·23
55-64	30·36	34·96	35·43	33·20	36·54	33·50	31·52	35·65	34·59
65-74	51·32	72·09	69·19	43·60	62·06	59·07	47·18	67·71	64·60
75 and over ..	63·78	86·36	105·94	62·95	79·98	93·55	63·43	83·49	100·08
All Ages	4·99	6·90	8·06	4·77	6·62	7·37	4·88	6·77	7·72

Prior to the 1911-20 decennium the female rates were consistently higher than the male up to and including the age group 55-64 years, after which the position was reversed. After 1910 the female rate was lower than the male in age group 55-64.

Cancer is probably the most feared of all diseases, inasmuch as no specific remedy is known, and in all countries for which records are kept the death-rate is increasing. Steps have been taken by the University of Sydney to organise research work in relation to the disease. Laboratories have been equipped within the University, and research workers have been engaged to conduct investigations locally and abroad. As a result of a public appeal for funds to aid cancer research and treatment the sum of £120,000 was collected in 1926.

In the following table the rates of mortality from cancer are given for the Australian States and New Zealand. The comparison is upon the crude basis of total population and is uncorrected for age and sex incidence.

State.	Cancer Death-rate per 1,000 of Total Population.							
	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
New South Wales ...	·87	0·86	0·93	0·94	0·93	0·93	0·94	0·94
Victoria ...	1·00	1·02	1·00	0·98	1·01	1·00	1·07	1·07
Queensland ...	0·86	0·83	0·79	0·81	0·88	0·82	0·85	0·87
South Australia ...	0·95	0·95	0·94	0·93	0·95	0·93	1·00	1·10
Western Australia ...	0·89	0·76	0·91	0·81	0·90	0·88	0·86	0·92
Tasmania ...	0·87	0·77	0·92	0·92	0·88	1·03	0·78	0·95
Commonwealth ...	0·91	0·89	0·93	0·92	0·94	0·93	0·96	0·97
New Zealand...	0·85	0·88	0·96	0·91	0·99	0·96	0·99	1·00

Diabetes.

The proportion of deaths due to diabetes has been growing steadily during the past twenty years and now it ranks thirteenth in the list of individual causes arranged in order of number of deaths. Although the disease is responsible for little more than 1 per cent. of the annual number of deaths the average rate of mortality from diabetes has increased by approximately 57 per cent. during the past twenty years.

The deaths due to diabetes in 1929 numbered 315, equal to a rate of 1·28 per 10,000 living. The rate for males was 1·03 and for females 1·54 per 10,000 living of each sex. Most of the deaths occurred after middle life, 269 out of 315 deaths in 1929 being persons over 45 years of age.

Meningitis.

The diseases included under the above heading—encephalitis, simple meningitis, and non-epidemic cerebro-spinal meningitis—caused 181 deaths during 1929; the corresponding rate being 0.73 per 10,000 living. Of this number 98 were males and 83 females, equivalent to rates per 10,000 living of each sex of 0.78 and 0.69 respectively. The deaths in the metropolis and country were 90 and 91, with corresponding rates per 10,000 living of 0.73 and 0.74.

Of those who died during 1929, 81, or 45 per cent., were under 5 years of age.

Hæmorrhage of the Brain.

Mortality from this cause showed a slow but sustained increase for twenty years prior to the quinquennium 1909-13, then there was an appreciable decline until 1924. Since that year the figures are not strictly comparable owing to changes in the method of classification due to a revision in the classification of causes of death. In 1925 greater preference was given to cerebral hæmorrhage as a cause of death when found in combination with diseases of the arteries, atheroma, etc. In 1928, however, a further change was made, and all cases of arterio-sclerosis combined with any cerebral vascular lesion are now included with disease of the arteries.

The number of deaths due to cerebral hæmorrhage and apoplexy during the year 1929, under the new classification, was 854, of which 436 were those of males and 418 those of females. The rate was 3.47 per 10,000 living, or 3.47 for males and 3.46 for females.

The following table shows the number of deaths and the rates for both sexes from cerebral hæmorrhage and apoplexy since 1884, but the alterations in classification mentioned above rather vitiate the figures for the last five years:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	778	2.97	467	2.15	1,245	2.58
1889-93	796	2.58	618	2.37	1,414	2.48
1894-98	943	2.79	710	2.39	1,653	2.60
1899-1903	1,050	2.92	788	2.42	1,838	2.68
1904-08	1,303	3.31	1,039	2.91	2,342	3.15
1909-13	1,627	3.69	1,439	3.58	3,066	3.64
1914-18	1,693	3.49	1,431	3.08	3,124	3.29
1919-23	1,735	3.24	1,587	3.08	3,322	3.16
1924	332	2.92	339	3.10	671	3.01
1925	439	3.78	434	3.89	873	3.84
1926	539	4.56	488	4.29	1,027	4.42
1927	524	4.33	536	4.60	1,060	4.46
1928	391	3.16	413	3.47	804	3.31
1929	436	3.47	418	3.46	854	3.47

Convulsions of Children.

Convulsions of children (under 5 years of age) caused 30 deaths during 1929, or 0.12 per 10,000 living at all ages, which is 48 per cent. below the rate for the previous quinquennium. The corresponding number of deaths in 1928 was 47.

The following table shows the number of deaths and the rates from convulsions of children for both sexes in periods since 1875:—

Year.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1875-9	1,538	8.93	1,291	8.94	2,829	8.93
1880-4	2,007	9.12	1,600	8.83	3,607	8.99
1885-9	1,916	6.99	1,615	7.14	3,531	7.06
1890-4	1,601	5.07	1,355	5.03	2,956	5.05
1895-9	1,281	3.73	1,119	3.70	2,400	3.72
1900-4	781	2.15	625	1.89	1,406	2.02
1905-9	550	1.40	480	1.32	1,030	1.36
1910-14	458	1.00	343	0.83	801	0.92
1915-19	404	0.83	291	0.61	695	0.72
1920-24	208	0.38	183	0.35	391	0.36
1925	33	0.28	20	0.18	53	0.23
1926	42	0.35	25	0.22	67	0.29
1927	30	0.25	16	0.14	46	0.19
1928	25	0.20	22	0.19	47	0.19
1929	15	0.12	15	0.12	30	0.12

The rates of mortality show a remarkably steady decline. The disease, once of formidable importance, is now only a minor cause of death. Being limited to children under 5 years of age, the rates are better stated proportionately at that age-period. On this basis the death-rate in 1929 was 1.17, as compared with 2.08 of the previous quinquennium. Of the total deaths during 1929, 25 occurred during the first year of life, the equivalent rate being 0.47 per 1,000 births. The deaths of males and females during the first year of life were 12 and 13 respectively; for all children under 5 years of age, 15 males and 15 females. The continuous decline shown in this cause of infantile mortality is more apparent than real, being due largely to increasing skill in diagnosing the diseases of children. Numerous deaths having convulsions as their immediate cause are now ascribed to some other cause which led to convulsions.

Insanity.

Classed as a distinct disease of the nervous system, insanity causes death from general paralysis of the insane and from other forms of mental alienation. Practically all the persons in New South Wales coming within this classification are under treatment in the various mental hospitals. On the 30th June, 1929, there were 9,140 persons under official cognisance, including 36 patients from the Broken Hill district who were under treatment in South Australian hospitals. The proportion per 1,000 of the population was 3.71 or about 0.7 per cent. more than the average for the previous five years.

The number of deaths from this cause was 95—62 males and 33 females—in the year 1929. The death-rate per 10,000 living was 0.49 for males and 0.27 for females.

In England and Wales the corresponding figures in 1928 were 0.87 and 0.50.

In the year 1928-29 there were 568 deaths in mental hospitals, equivalent to 66.4 per 1,000 of the average number of patients in residence. This rate of mortality, however, is not comparable with that of the general population, because the proportion of mental patients under the age of 20 years is very small, due, doubtless, to the facts that many children mentally afflicted are cared for in their homes, and that mental alienation frequently does not become manifest until middle or advanced age is reached.

The following statement provides a comparison of the mortality of the adult patients in mental hospitals with that of the general population in age groups:—

Age Group. Years.	Deaths per 1,000 Living—Period 1911-1920.					
	Patients in Mental Hospitals.			General Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
20-29	39.4	38.3	38.9	4.4	4.0	4.2
30-39	57.0	41.7	50.8	5.7	4.8	5.2
40-49	71.9	53.0	63.8	9.5	6.5	8.1
50-59	93.0	67.3	82.5	17.2	11.3	14.5
60-69	134.4	117.2	128.5	30.2	22.9	28.3
70 and over	312.9	261.4	293.1	111.1	88.7	100.3
20 and over	90.8	70.6	82.7	14.3	10.5	12.1

The rates shown above are rendered somewhat abnormal by the inclusion of deaths due to influenza during the epidemic of 1919, but at all ages the rate of mortality among mental patients is very much higher than among the general population. In the earlier years the ratio of the disparity is nearly 10 to 1, but it diminishes as age increases, and after age 70 is passed it is about 3 to 1.

Diseases of the Heart.

For reasons stated below, statistics of mortality from this cause are of limited value, there being important factors connected with the mode of certification and classification which affect the numbers from year to year.

The ages of persons who died from diseases of the heart during 1929 ranged between 2 years and 100 years, and 90 per cent. of those who succumbed were 45 years or over.

The deaths and the death-rates of each sex since 1884 are shown below:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	2,149	8.12	1,390	6.39	3,539	7.34
1889-93	2,250	7.30	1,357	5.20	3,607	6.34
1894-98	2,434	7.19	1,478	4.98	3,912	6.16
1899-1903	2,917	8.11	1,932	5.94	4,849	7.08
1904-1908	3,791	9.81	2,727	7.65	6,518	8.77
1909-1913	5,054	11.47	3,633	9.04	8,687	10.31
1914-1918	5,950	12.26	4,168	8.97	10,118	10.65
1919-1923	6,901	12.87	5,384	10.44	12,285	11.68
1924	1,498	13.17	1,258	11.51	2,756	12.36
1925	1,760	15.17	1,307	11.72	3,067	13.48
1926	1,805	15.26	1,475	12.95	3,280	14.13
1927	2,162	17.86	1,623	13.94	3,785	15.94
1928	2,135	17.25	1,714	14.42	3,849	15.86
1929	2,286	18.20	1,816	15.02	4,102	16.64

The classified causes of the total number of deaths include pericarditis, endocarditis and acute myocarditis, angina pectoris and other diseases of the heart. The apparent increase in mortality due to diseases of the heart is probably the result more of specialised biological knowledge, and of the greater attention given to pathological diagnoses, than to any real cause. Many deaths formerly recorded as being caused by senile decay would now doubtless be assigned to some cardiac trouble. The marked increase that has taken place in the number of deaths from diseases of the heart in the past five years is considered to be due largely to an increasing tendency on the part of medical practitioners to give prominence to myocarditis as a cause of death rather than to any real increase in the number of deaths due to this cause. Every care is taken in the compilation of statistics to ensure classification of certificates in accordance with the international list of causes of death. Doubtful cases and indefinite cases are investigated and necessary corrections made, but it is still apparent that medical practitioners do not follow the principles of the international list of causes of death in the certificates which they supply. In every case where myocarditis appears as a joint cause on the certificate, the medical practitioner certifying is asked for full particulars.

In the following table are shown the death-rates for each sex in the principal age groups in decennial periods since 1891.

Age Groups. Years.	Deaths per 10,000 living—Diseases of the Heart.								
	Males.			Females.			Persons		
	1891- 1900.	1901- 1910.	1911- 1920.	1891- 1900.	1901- 1910.	1911- 1920.	1891- 1900.	1901- 1910.	1911- 1920.
0-4 ..	1.14	1.13	.35	.89	.97	.49	1.02	1.05	.42
5-9 ..	.99	1.10	.94	.98	1.16	.95	.99	1.13	.94
10-14 ..	1.28	1.49	1.13	1.31	1.84	1.49	1.30	1.66	1.30
15-19 ..	1.40	1.92	1.78	1.66	1.98	1.75	1.53	1.95	1.76
20-24 ..	1.42	1.55	2.18	1.83	1.94	2.02	1.62	1.74	2.09
25-34 ..	2.66	2.15	2.88	2.53	2.53	2.70	2.60	2.34	2.79
35-44 ..	5.81	5.46	5.67	5.63	6.13	5.00	5.74	5.77	5.35
45-54 ..	13.36	13.79	15.01	11.20	11.80	11.90	12.47	12.93	13.59
55-64 ..	36.56	35.37	38.52	25.29	28.72	28.47	31.96	32.48	34.09
65-74 ..	69.40	91.84	69.07	54.65	78.67	81.78	62.37	86.15	91.21
75 and over ..	104.74	178.83	237.73	89.54	141.23	201.76	98.30	161.94	220.73
All ages ..	7.31	9.69	12.03	5.20	7.51	9.09	6.33	8.60	10.60

Although the apparent rate for all ages has increased by nearly 70 per cent. during the period reviewed, the increase is practically confined to ages 55 and over, due to causes explained in the previous paragraph.

Under the age of 45 there is very little difference between the rates of males and of females, but thereafter the male rate is distinctly higher, the result, no doubt, of the more strenuous life of males than of females.

Bronchitis.

Bronchitis caused 508 deaths during 1929, equal to a rate of 2.06 per 10,000 living. Of the total, 254 were males and 254 females, the corresponding rates per 10,000 of each sex being 2.02 and 2.10. The rate for the State was 12 per cent. lower than that experienced during the previous five years. Deaths in the metropolis numbered 224, and there were 284 in other parts of the State. The corresponding rates were 1.82 and 2.30 per 10,000 living. Of the total deaths, 168 were caused by acute bronchitis, 174 cases were shown as being due to the disease in its chronic form, and 166 were unspecified. Of those persons who died of acute bronchitis, 37 per cent. were under 5 years of age, and 86 per cent. of those who succumbed to

chronic bronchitis were 55 years of age and over. Experience shows the disease to be most prevalent during the months of June, July, August and September.

Pneumonia.

Pneumonia, including broncho-pneumonia, was the cause of 2,216 deaths during 1929, the equivalent rate per 10,000 living being 8.99, which was 20 per cent. above the average for the preceding quinquennium. Of the total 1,273 were males and 943 females. The male and female rates per 10,000 living were 10.14 and 7.80 respectively. The deaths in the metropolis numbered 1,050, and those in the remainder of the State 1,166. The rate in the remainder of the State was 0.9 per cent. higher than that in the metropolis. An analysis of the deaths according to age shows that pneumonia is most destructive in its attacks on children under 5 years of age and adults who have passed the age of 55. The rate of mortality from pneumonia is lowest among children between 10 and 14 years of age, but from then on it increases with advancing age.

Of the persons who died from pneumonia during 1929, 27 per cent. were under 5 years of age and 47 per cent. 50 years of age and over. The following table gives deaths and rates, according to sex, since the year 1884:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	2,032	7.68	1,301	5.98	3,333	6.91
1889-93	2,158	7.00	1,373	5.26	3,531	6.21
1894-98	2,514	7.43	1,528	5.15	4,042	6.37
1899-1903	3,191	8.87	2,000	6.15	5,191	7.58
1904-1908	2,816	7.28	1,824	5.12	4,640	6.24
1909-1913	2,983	6.77	1,931	4.81	4,914	5.83
1914-1918	3,779	7.78	2,402	5.17	6,181	6.50
1919-1923	4,217	7.87	3,042	5.90	7,259	6.90
1924	892	7.84	619	5.66	1,511	6.78
1925	868	7.48	677	6.07	1,545	6.79
1926	928	7.84	680	5.97	1,608	6.93
1927	1,143	9.44	786	6.75	1,929	8.12
1928	979	7.91	736	6.19	1,715	7.07
1929	1,273	10.14	943	7.80	2,216	8.99

The greatest mortality from pneumonia occurs in the cold weather and early spring, and in 1929 there were in the four months, July to October, 1,176 deaths, or 53 per cent. of the total number from this cause.

The following table shows the death-rates for each sex in the principal age groups, in decennial periods since 1891:—

Age Group. Years.	Deaths per 10,000 living—Pneumonia.								
	Males.			Females.			Persons.		
	1891-1900.	1901-1910.	1911-1920.	1891-1900.	1901-1910.	1911-1920.	1891-1900.	1901-1910.	1911-1920.
0-4	21.08	21.19	20.80	17.16	17.70	18.00	19.15	19.48	19.43
5-9	1.29	1.31	1.48	1.20	1.27	1.41	1.25	1.29	1.45
10-14 .. .	.55	.95	.64	.93	1.10	.76	.74	1.02	.70
15-19 .. .	2.01	2.29	1.69	1.26	1.49	.88	1.64	1.90	1.28
20-24 .. .	3.08	3.00	2.90	1.90	1.54	1.44	2.50	2.28	2.13
25-34 .. .	3.91	3.67	3.55	2.60	2.30	2.09	3.32	3.01	2.82
35-44 .. .	6.69	6.06	5.01	3.97	3.92	2.72	6.55	5.09	3.92
45-54 .. .	9.61	9.47	8.76	5.33	4.78	4.19	7.85	7.45	6.68
55-64 .. .	16.08	16.15	12.58	10.78	10.19	8.13	13.92	13.56	10.62
65-74 .. .	28.21	28.47	23.99	18.66	22.98	19.19	23.89	26.10	21.81
75 and over	42.40	46.54	55.56	35.38	50.32	52.19	39.42	48.24	53.97
All ages ..	7.46	7.68	7.49	5.22	5.50	5.29	6.42	6.64	6.42

As in most diseases affecting adults, the death-rates are higher for males than for females. About 25 per cent. of deaths occur between the ages of 5 and 45 years. In the age group 0-4 years a slight increase is shown, but between the ages of 20 and 74 the rates have been slowly but steadily decreasing. The increase shown in the age group 75 and over is due probably to more information being now available as to cause of death.

Diseases of the Digestive System.

Diseases of the digestive system caused the deaths of 966 males and 751 females during 1929, the respective rates per 10,000 living being 7.69 and 6.21. The rate corresponding to the total deaths from these diseases in the State was 6.97 per 10,000 living, and was slightly lower than that experienced during the previous five years. Deaths resulting from diseases of the digestive system were caused in the main by diarrhœa and enteritis, with hernia and intestinal obstruction, appendicitis, and cirrhosis of the liver next in order of fatality.

Diarrhœa and Enteritis.

The incidence of these diseases is mainly upon young children, and the pronounced effect of seasonal conditions upon the mortality from this cause is dealt with in discussing deaths of children under 1 year of age. The deaths of children under 1 year from these causes in 1929 totalled 366—228 males and 138 females. In 1929 there were 641 deaths from these causes at all ages, equivalent to a rate of 2.60 per 10,000 of the general population, the rate for males being 2.89 and for females 2.30. The combined rate was over 48 per cent. below the average for the preceding quinquennium. The following table shows the number of deaths and the rates since 1884, distinguishing between the sexes:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	3,412	12.89	3,048	14.02	6,460	13.40
1889-93	3,451	11.20	2,851	10.92	6,302	11.07
1894-98	4,042	11.94	3,638	12.26	7,680	12.09
1899-1903	4,422	12.29	3,901	11.99	8,323	12.15
1904-1908	3,714	9.61	3,000	8.41	6,714	9.03
1909-1913	4,257	9.66	3,471	8.64	7,728	9.18
1914-1918	3,622	7.46	2,957	6.36	6,579	6.92
1919-1923	3,813	7.11	3,039	5.89	6,852	6.51
1924	558	4.91	480	4.39	1,038	4.65
1925	374	3.22	298	2.67	672	2.95
1926	588	4.97	472	4.14	1,060	4.57
1927	404	3.34	327	2.81	731	3.08
1928	512	4.14	459	3.86	971	4.00
1929	363	2.89	278	2.30	641	2.60

There was a considerable drop in the rate after 1888, due probably to the beneficial operations of the Dairies Supervision Act. During the next fifteen years there was a gradual increase, followed by a marked improvement in 1904, an improvement which was maintained consistently until the years 1919 and 1920, when an upward tendency was manifested, which, however, was not maintained, and during the last nine years the general trend has been downward, though the rate has fluctuated. The unusually low mortality in 1925 was probably due in a large measure to the bountiful rainfall.

Of the total deaths from diarrhoea and enteritis during 1929, 294, or 46 per cent., occurred in the months of January, February, and March; and 72, or 11 per cent., in the months of June, July, and August. As a rule, nearly 50 per cent. of the deaths occur in the months first mentioned.

Deaths from these diseases are classified into two groups, one including children under 2 years of age, and the other all persons 2 years of age and over. In the first group there were 474, or 74 per cent. of the total, and in the second, 167. Additional particulars are shown on page 314.

Since such a large proportion of the deaths is contained in this first group, it is interesting to consider the improvement in the rate shown by the following table, in which the deaths of children under 2 years from diarrhoea and enteritis are related to the total number of children in that age group:—

Year.	No.	Rate per 1,000 Living.	Year.	No.	Rate per 1,000 Living.
1881	733	33.50	1925	532	5.11
1891	985	14.76	1926	801	7.67
1901	1,165	18.10	1927	513	4.93
1911	963	11.21	1928	775	7.43
1921	988	10.08	1929	474	4.50

Although the rate of mortality from these causes is still comparatively heavy, there has been a very marked improvement. The proportion of deaths in 1929 was less than one-seventh of the rate in 1881.

Appendicitis.

To this cause 216 deaths were ascribed in 1929, the rate being 0.88 per 10,000 living, which is 12 per cent. above the average of the preceding quinquennium. Appendicitis is more fatal to males than to females, the rate for the former in 1929 being 1.11, and for the latter 0.63 per 10,000 living. The number of deaths from appendicitis in 1928 was 190.

Cirrhosis of the Liver.

Information relating to mortality from cirrhosis of the liver is of interest in connection with alcoholism. For a number of years the rate fluctuated, and a slow downward tendency was evident until 1922 when there was a marked increase. During the last three years the number has been high notwithstanding the fact that the revised classification of joint causes of death adopted in 1925 gives this cause less weight than formerly when it occurs in conjunction with certain other causes of death.

Deaths from cirrhosis of the liver in 1929 numbered 111—75 males and 36 females, the rate being 0.45 per 10,000 living—4 per cent. below the average for the previous quinquennial period. This disease is more prevalent among males than females—the rate for the former in 1929 being 0.60, and for the latter 0.29 per 10,000 living in each sex.

The number of deaths from this cause in 1928 was 113.

Bright's Disease or Nephritis.

Bright's disease or nephritis has grown in the past forty years from a relatively infrequent cause of death to a prominent position among the major causes, and now it ranks fourth in order of importance amongst those causes of death whose incidence falls upon the general population. From 1884 to 1913 the number of deaths due to the disease gradually increased, and the rate of mortality caused by it more than doubled. A check in the increase then set in, and was followed after 1918 by an appreciable decrease,

and the average annual rate for the next five years fell to 456 per million inhabitants as against 501 in 1914-18. In 1924, 1925, 1928, and 1929, however, the rates exceeded 490, and reached a maximum figure of 555 in 1929.

During 1929 there were 1,836 deaths due to diseases of the genito-urinary system, of which 1,367 were caused by Bright's disease, acute and chronic. The rate was 5.55 per 10,000 living, and for males and females 6.12 and 4.95 respectively, the general rate being 5 per cent. above that experienced during the previous quinquennium. The deaths due to these diseases in the metropolis were 734, and in the rest of the State 633, the corresponding rates per 10,000 living being 5.97 and 5.12. Experience shows that the fatality of these diseases increases slightly during the winter months.

The number of deaths and the rates of mortality due to Bright's disease are shown below.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	626	2.37	386	1.78	1,012	2.10
1889-93	907	2.94	570	2.18	1,477	2.60
1894-98	1,291	3.81	821	2.77	2,112	3.33
1899-1903	1,659	4.61	996	3.06	2,655	3.88
1904-1908	2,056	5.32	1,199	3.36	3,255	4.38
1909-1913	2,649	6.01	1,539	3.83	4,188	4.97
1914-1918	3,080	6.34	1,682	3.62	4,762	5.01
1919-1923	2,914	5.44	1,886	3.66	4,800	4.56
1924	683	6.01	420	3.84	1,103	4.95
1925	692	5.96	427	3.83	1,119	4.92
1926	628	5.31	480	4.22	1,108	4.77
1927	671	5.54	469	4.03	1,140	4.80
1928	717	5.79	528	4.44	1,245	5.13
1929	769	6.12	598	4.95	1,367	5.55

During the first thirty-five years of the period covered by the foregoing table the rate of mortality both for males and females has more than doubled, and has increased considerably during the last twenty years. The rate for males in 1929 was 24 per cent. higher than that for females. Comparatively few persons under 35 years of age die from nephritis, the proportion in 1929 being 9 per cent. of the total.

The following table shows the death-rates for each sex in the principal age groups in decennial periods since 1891:—

Age Group. Years.	Deaths per 10,000 living—Bright's Disease.								
	Males.			Females.			Persons.		
	1891-1900.	1901-1910.	1911-1920.	1891-1900.	1901-1910.	1911-1920.	1891-1900.	1901-1910.	1911-1920.
0-4	1.31	1.52	.87	1.44	1.23	.81	1.37	1.38	.84
5-9 .. ..	.44	.48	.33	.44	.50	.27	.44	.49	.30
10-14 .. .	.26	.49	.28	.38	.53	.48	.32	.51	.38
15-19 .. .	.76	.72	.67	.61	.77	.60	.68	.74	.63
20-24 .. .	1.01	1.04	1.33	1.26	1.07	1.29	1.13	1.05	1.31
25-34 .. .	1.80	1.85	1.88	2.38	1.74	1.73	2.06	1.80	1.81
35-44 .. .	4.48	4.36	3.54	4.52	4.12	3.32	4.50	4.25	3.43
45-54 .. .	8.40	9.92	10.73	6.65	7.98	6.65	7.68	9.08	8.87
55-64 .. .	15.39	20.17	22.91	10.47	12.83	12.92	13.29	16.98	18.51
65-74 .. .	26.47	40.87	45.24	15.77	25.06	28.12	21.71	34.05	37.46
75 and over..	29.29	59.12	75.56	16.59	29.65	41.64	23.90	45.89	59.53
All ages ..	3.62	5.16	6.12	2.63	3.33	3.67	3.16	4.29	4.93

Although the total rates show a decided increase during the period reviewed, those for males under 45 and for females under 55 had decreased. The male rate at practically every age was higher than the female. For each sex the rate depends entirely upon the age; a slow increase is noted till the age of 45 is reached, after which the increase is rapid.

Deaths from Puerperal Causes.

The word "puerperal" is used in the broadest sense and includes all deaths due to pregnancy, parturition, or diseases of the breast during lactation.

Details of the deaths due to puerperal causes according to age, duration of marriage, previous issue, cause, locality and conjugal condition are shown in the Statistical Register. Of the 278 deaths due to puerperal causes, 261 were of married and 17 of single women. Of the married mothers 18, and of the single mothers 9 died before reaching the age of 21 years; the ages at death of the married women ranged from 16 years to 46 years, and of single women from 15 years to 41 years. The age at marriage of mothers who died ranged from 14 to 39 years. In one case the duration of marriage was 28 years, but 14 mothers died within a year of marriage. In 79 cases there was no previous issue and in 46 cases the death occurred within two years of marriage, while in two cases 14 children survived the mother. In 170 cases of the 278 deaths from puerperal causes the child was still-born.

The incidence of deaths from puerperal causes falling only upon women of child-bearing ages, and mainly upon married women of these ages, the rates of mortality are not quoted as a proportion of general population, but are generally stated at per thousand births. Such rates showed a persistent though fluctuating decline in the three decades 1895-1924. During the period 1895-1904 the annual average number of deaths of mothers in childbirth was 268, equal to 7.1 deaths per 1,000 births. The corresponding number for the period 1905-1914 was 284, and the rate 6.2, compared with 289 and 5.2 respectively for the period 1915-1924. The decreased proportion of unmarried mothers has contributed slightly to this decline; but the rates quoted represent very closely the improvement that has occurred in mortality in childbirth among married mothers. A comparison of deaths in childbirth in this State with those of other countries must be made with caution. In England they are classified so as to show the total puerperal mortality and total maternal mortality; from the former are excluded deaths from albuminuria and nephritis. In the international list of causes of death criminal abortion is classified with homicide. In the table given below deaths from this cause are included to show the total deaths incidental to childbirth, but the totals are also shown excluding criminal abortion to enable comparison to be made with other countries where these deaths are not included.

Causes.	Deaths, 1924-28.		Deaths, 1929.	
	No.	Rate per 1,000 Births.	No.	Rate per 1,000 Births.
Accidents of Pregnancy	162	.60	29	.55
Puerperal Hemorrhage	186	.69	34	.65
Puerperal Septicæmia	434	1.61	49	0.93
Puerperal Septicæmia, following Abortion, Miscarriage.			30	.57
Albuminuria and Eclampsia	327	1.21	48	.91
Phlegmasia Alba Dolens, Embolus, Sudden Death.	117	.43	26	.49
Other Casualties of Child-birth	155	.57	29	.55
Total	1,381	5.11	245	4.65
Illegal Operations	190	.71	33	.63
Total	1,571	5.82	278	5.28

The number of deaths of women resulting from various diseases and casualties due to puerperal causes was 278 in 1929, as compared with 327 in 1928, equivalent to a rate of 5.3 in 1929 and 6.0 in 1928, per 1,000 births. The causes of deaths in 1929 with the corresponding total for 1928 shown in brackets were:—Puerperal septicæmia 79 (102 deaths), puerperal hæmorrhage 34 (49), accidents of pregnancy 29 (32), albuminuria and eclampsia 48 (67), phlegmasia alba dolens, embolus, sudden death, 26 (25). The experience of the five years 1925-29 shows that the average number of fatal cases per 1,000 births for married and for single women are 5.6 and 10.0 respectively. Plural births are reckoned as single confinements.

Cause of Death in Childbirth.	Number of Deaths, 1925-29			Proportion per cent. due to each Cause.	
	Married.	Single.	Total.	Married.	Single.
Accidents of Pregnancy	148	10	158	10.40	7.41
Puerperal Hæmorrhage	180	7	187	12.65	5.19
Puerperal Septicæmia	407	31	438	28.60	22.96
Albuminuria and Eclampsia	295	19	314	20.73	14.07
Phlegmasia Alba Dolens, Embolus, Sudden Death.	117	4	121	8.22	2.96
Other Casualties of Childbirth	142	7	149	9.99	5.19
Total, excluding Illegal Operations ...	1,289	78	1,367	90.59	57.78
Illegal Operations	134	57	191	9.41	42.22
Total	1,423	135	1,558	100.00	100.00

Of the 1,423 married women who died in childbirth, 785 or 55 per cent. gave birth to still-born children, and of the 135 single women, 101 or 74 per cent. Illegal operations caused over 42 per cent. of the puerperal deaths of single women.

More than any other cause of death during childbirth, puerperal septicæmia can be classed as a preventable disease. Over 25 per cent. of the deaths are due to this cause, but the proportion has declined appreciably in recent years. During the last ten years the annual rates of mortality of mothers in childbirth per 1,000 births were as follow:—

Year.	Deaths from Puerperal Septicæmia per 1,000 Births.			Total Deaths of Mothers in Child birth per 1,000 Births.		
	Metropolis.*	Remainder of State.	State.	Metropolis.	Remainder of State.	State.
1919	2.4	.9	1.4	6.6	4.7	5.4
1920	2.7	1.5	2.0	7.6	5.1	6.1
1921	1.9	1.4	1.6	5.8	4.7	5.1
1922	1.6	1.6	1.6	5.9	4.6	5.1
1923	1.6	1.2	1.4	6.7	4.2	5.2
1924	1.7	1.2	1.4	6.4	4.7	5.4
1925	1.6	1.6	1.6	7.2	5.1	6.0
1926	1.4	1.2	1.3	6.6	4.3	5.2
1927	2.0*	1.9*	1.9	7.9*	5.7*	6.5
1928	2.0*	1.8*	1.9	6.3*	5.8*	6.0
1929	2.0*	1.1*	1.5	6.1*	4.7*	5.3

* Classified according to usual address of deceased mother.

The above table shows that the incidence of deaths of mothers in childbirth is considerably heavier in the metropolis than elsewhere in the State, despite the better hospital, medical and nursing facilities available in the city. The explanation of this apparent anomaly is suggested by the following table, which shows the incidence of deaths from childbirth on an industrial and geographical basis during the period 1915-24:—

Division.	Deaths from Puerperal Septicæmia per 1,000 Births.		Total Deaths of Mothers in Childbirth per 1,000 Births.	
	Married.	Single	Married.	Single.
Metropolis	2·03	3·32	5·96	11·63
Country Municipalities	1·74	2·26	5·49	7·66
Shires	·95	1·32	3·55	6·08
New South Wales	1·68	2·71	5·25	9·62
Industrial Centres	2·02	3·26	5·91	11·16
Non-Industrial Centres	1·35	1·77	4·61	6·98

The metropolis includes a very large proportion of the industrial population, and embraces practically the whole of that proportion of the population living under the conditions of modern city life. Here the maternal mortality in childbirth is considerably higher than in any other part of the State. The country municipalities include only one large town—Newcastle—but they embrace considerable mining populations in the northern, southern, and western coal-fields and the silver-lead mines of Broken Hill. Although the shires embrace a number of coal mining towns, their population consists for the most part of the dwellers in small towns and on farms and, among these, deaths of mothers in childbirth are far less numerous than in industrial and urban districts.

Deaths from Violence.

This category includes deaths from accident, suicide, homicide, and other deaths not classified, in respect of which “open verdicts” were recorded at coroners’ inquests. Owing to the decline in the proportion of deaths due to accident, the rate of mortality due to violence has diminished slightly during the past thirty-seven years. The annual number of suicides has increased, but their proportion to the population has not shown any marked variation. Deaths from homicide and those classed as “open verdicts” have remained fairly constant in number, and their proportion to the population has, therefore, decreased.

Deaths from violence in 1929 numbered 1,795, or 7 per cent. of the total deaths of the year. This number includes 301 suicides, 1,431 accidents, 43 homicides, and 20 classified as other external violence. The rate, 7.28 per 10,000 living, was 6 per cent. higher than the rate for the preceding

quinquennium, which was 6.87. In the year 1929 the males numbered 1,415, or 11.29 per 10,000 living, and the females 377, or 3.11 per 10,000, or 28 per cent. of the male rate.

Deaths from Suicide.

The number of persons who took their own lives in 1929 was 301, or a rate of 1.22 per 10,000 living, and about 4 per cent. above the average for the preceding quinquennium. The number of males suicides was 239, at a rate of 1.90 per 10,000 living, and of female 62, or a rate of 0.51 per 10,000 living—the male rate thus being nearly four times that of the females.

The number of deaths from suicide and the rates since 1884 are shown in the following table:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	428	1.62	96	0.44	524	1.09
1889-93	519	1.68	110	0.42	629	1.11
1894-98	679	2.01	169	0.57	848	1.34
1899-1903	651	1.81	142	0.44	793	1.16
1904-1908	719	1.86	160	0.49	879	1.18
1909-1913	857	1.95	238	0.59	1,095	1.30
1914-1918	888	1.83	223	0.48	1,111	1.17
1919-1923	887	1.65	244	0.47	1,131	1.08
1924	205	1.80	50	0.46	255	1.14
1925	209	1.80	54	0.48	263	1.16
1926	236	1.99	57	0.50	293	1.26
1927	209	1.73	53	0.45	262	1.10
1928	241	1.95	55	0.46	296	1.22
1929	239	1.90	62	0.51	301	1.22

The means usually adopted for self-destruction by men are either shooting, poisoning, cutting, or hanging. Women, as a general rule, avoid weapons, and resort mostly to poison. Of every 100 cases of suicide during the five years 1925-29, 35 were by the agency of poison, 20 by shooting, 17 by cutting, 15 by hanging, and 7 by drowning. The proportion of suicides by shooting during the five years 1917-21 was 28 per cent., and the decrease since that period is probably the result of the introduction in 1921 of regulations regarding the possession of firearms.

Experience indicates that the suicidal tendency is probably influenced by the seasons. During the last ten years 1920-29 the proportion of male suicides per 1,000 was approximately as follows:—In spring 257, summer 269, autumn 230, and winter 244. The number of suicides is usually greater in January than in any other month.

Female suicides, being numerically small, give variable results as regards seasonal influence, and, contrary to the experience of males, no particular month showed any preponderance.

Deaths from Accident.

During the year 1929 the number of fatal accidents was 1,431, viz., 1,134 of males and 297 of females, or equal to rates of 9.03 and 2.46 per 10,000 living of each sex, and the general rate was 5.81 per 10,000 living. Accidental deaths have always been numerically greater in the extra-metropolitan area. Of those registered during 1929, deaths from accident in the metropolis numbered 678, and in the remainder of the State 753. Prior to 1927, as a general rule, about two-thirds of the accidents occurred in the latter division, which contained about 55 per cent. of the total population.

The number of deaths from accident and the rates since 1884 are shown in the table below:—

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	3,550	13.41	944	4.34	4,494	9.32
1889-93	3,666	11.90	966	3.70	4,632	8.14
1894-98	3,498	10.33	1,095	3.69	4,593	5.23
1899-1903	3,432	9.54	1,103	3.39	4,535	6.62
1904-1908	3,143	8.13	1,055	2.96	4,198	5.65
1909-1913	3,891	8.83	1,114	2.77	5,005	5.94
1914-1918	3,814	7.86	1,075	2.31	4,889	5.14
1919-1923	3,656	6.82	1,080	2.09	4,736	4.50
1924	833	7.33	239	2.19	1,072	4.81
1925	873	7.52	248	2.22	1,121	4.93
1926	975	8.24	280	2.46	1,255	5.41
1927	1,117	9.22	298	2.56	1,415	5.96
1928	1,018	8.23	266	2.24	1,284	5.29
1929	1,134	9.03	297	2.46	1,431	5.81

Although the death-rate from accidents is still high compared with that of more closely settled countries, it has decreased, the lowest rate being in the year 1923. During the ten years ending 1929, there was a fairly steady increase, with the exception of 1928. In the years prior to 1894 certain causes not now classed as accidents were included.

The experience of the quinquennium ended 1929 shows that out of every 1,000 fatal accidents 332 are due to vehicles and horses, 136 to drowning, 136 to falls, 92 to burns or scalds, 81 to railways and tramways, 25 to mines and quarries, and 20 to weather, *i.e.*, excessive cold or heat, and lightning.

Out of 571 deaths caused by accidents with vehicles and horses, 478 were due to motor vehicle accidents, viz., 288 in the metropolitan area and 190 in other districts. Accidents of this class are increasing annually; there were 127 in 1924, 227 in 1925, 256 in 1926, 335 in 1927, and 384 in 1928. Of the 478 persons killed in 1929, 87 were under 15 years, 138 were between 15 and 39 years, and 66 were over 60 years of age.

THE SEASONAL PREVALENCE OF DISEASES.

The following table shows for each month of the year the proportion of deaths due to each of nine principal causes. The figures are based on the experience of the five years 1925-29, and in order to make the results of the computation comparable, adjustments have been made to correct the inequality of the number of days in each month:—

Month.	Typhoid Fever.	In- fluenza.	Diph- theria and Croup.	Whoop- ing- Cough.	Phthisis.	Pneu- monia.	Bron- chitis.	Diarrhoea, Enteritis, and Dysentery.	Bright's Disease.
January ...	150	35	72	108	79	53	43	140	76
February ..	130	26	56	77	77	50	34	146	67
March ...	127	22	89	50	77	41	45	147	66
April ...	110	34	106	59	76	57	58	117	78
May ...	79	62	154	67	81	78	82	66	83
June ...	29	136	110	54	90	108	133	39	89
July ...	47	123	100	59	96	126	152	35	103
August ...	32	223	79	84	90	146	172	29	98
September.	33	140	70	104	86	109	102	29	84
October ...	41	81	75	90	82	95	71	38	88
November..	97	80	48	130	90	71	62	89	85
December..	115	38	41	118	76	66	46	125	83
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

In interpreting the above table comparison should be made vertically and not horizontally, the figures representing proportions per thousand and not absolute numbers.

The chief features of the above table are exhibited in the contrast between the figures relating to typhoid fever, diarrhoea and enteritis on the one hand, and to influenza, pneumonia, and bronchitis on the other. In the first group the influence of the hot weather is the controlling factor; in the second, the cold. The warmest months in the year are January, February, and December; the coldest, June, July, and August. The morbidity from phthisis varies little throughout the year, but the rates show that it is more fatal in the colder months. Bright's disease shows likewise a higher mortality during the cold weather.

FACTORIES.

THE manufacturing industries of New South Wales have been expanding rapidly, signs of progress being apparent in all phases of factory production. There has been a steady increase in the number of employees, in the use of machinery, in the amount of capital invested in premises and equipment, and in the value of the output. Reliable testimony of progress has been apparent in the establishment of many new industries, as well as the development of existing industries into new branches of production, in the introduction of scientific processes requiring a high standard of technical skill and of organisation and a large capital outlay. The progress in regard to production has been attended by steady improvement in the conditions of industrial employment.

At the beginning of the twentieth century very few of the factories in New South Wales were concerned in the production of the higher classes of manufactures, notwithstanding the immense quantities of raw materials, such as wool, minerals, etc., readily available. The great majority of the establishments were engaged in the production for local use of food commodities, furniture and bricks; in making clothing from imported materials; in printing; in the repair rather than the manufacture of machinery; or in the preliminary treatment of primary products, such as wool-scouring or saw-milling.

After the federation of the Australian States a protective customs tariff was introduced in order to encourage local manufactures, with the object of rendering the Commonwealth self-contained for purposes of defence, and for other national reasons. Assistance for some industries is provided in the form of bounties on the products.

During the decade which preceded the outbreak of war the secondary industries expanded steadily. Such development was then almost world-wide, as the demand for manufactured products grew apace by reason of increasing population and changing conditions of life, while the progress of science assisted producers to increase their output. In New South Wales economic conditions were especially favourable for the growth of secondary production. The State was prosperous, primary production was increasing, and the population was being augmented by immigration as well as by natural increase. The outbreak of war, which occurred at a time when the primary industries were affected by adverse seasonal conditions, caused a measure of disorganisation in the factories. But the set-back was temporary, and recovery was rapid in consequence of the demand for products for war purposes and the increase in the spending power of the people by reason of the circulation of war moneys and the returns received from high-priced exports. Moreover, the curtailment or cessation of supplies of many imported articles caused greater attention to be directed towards local resources.

Under these conditions the manufacturing industries entered upon a more advanced stage of development. Iron and steel works, and many subsidiary industries were established on a sound basis, the manufacture of various classes of machinery was undertaken, large ocean steamers were built, and many other high-grade products were added to the list of commodities made in New South Wales. The production of woollen goods and clothing is now sufficient to met local requirements.

The prevailing depression during 1927-28 has, however, been reflected in the factory figures for that year, there being a virtual decrease in the number of factories operating, and the number of employees, although there was a slight increase in the actual number of factories and employees over

1926-27, this was due entirely to the fact that bakeries were included for the first time. The factory figures for 1928-29 show but little progress over the previous year, and the indications are that the acute depression existing at present will be reflected in the figures for 1929-30. It is expected that recent increases in the tariff will be responsible for the opening up of new industries by overseas firms.

The products of the factories are used for the most part for local consumption, those which are exported in large quantities being flour, butter, frozen meat, wool-tops, and leather, and—in smaller, but appreciable quantities—biscuits, confectionery, tobacco, sulphate of ammonia, and medicines.

An account of the legislation relating to hours and conditions of work in factories will be found in chapter "Industrial Arbitration" in this Year Book.

SCIENTIFIC RESEARCH AND STANDARDISATION.

Organisations have been formed on a federal basis to promote scientific research and standardisation in the industries of Australia.

The Commonwealth Council of Scientific and Industrial Research was created in 1916, in the form of a temporary Advisory Council. It prepared the way for a permanent body, which was appointed in 1921, and reorganised in 1926 in terms of the Science and Industry Research Act, 1920-26. There is a central council and a committee in each State to advise the Council as to the problems to be investigated. The Council consists of three members appointed by the Commonwealth Government, who form the executive committee, the chairman of each State committee, and other persons with scientific knowledge co-opted by the Council.

The Council is empowered to conduct scientific researches in connection with primary and secondary industries, to train research workers, to make grants in aid of scientific research, to test and standardise scientific apparatus, to conduct investigations in reference to standardisation of machinery and materials used in industry, and to establish a bureau of information relating to scientific and technical matters.

Two sums of £250,000 each have been appropriated under the Act for the purpose of scientific and industrial investigation, and an Endowment Fund of £100,000 was created in 1926 to assist persons engaged in scientific work and students in training as research officers.

The Australian Commonwealth Engineering Standards Association was founded in 1922 to prepare standards in connection with engineering structures and materials, to promote their general adoption, and to co-ordinate efforts for their improvement. The main committee includes members representing the Governments of the Commonwealth and of the States and various technical associations. Sectional committees prepare the specifications for standardisation, which are published in a tentative form, to be revised twelve months later, with view to adoption as Australian standards. The specifications are based, to a large extent, upon those of the British Engineering Standards Association.

Another organisation for the improvement of industry which had been formed to eliminate waste by simplified practice has amalgamated with the Engineering Standards Association, and the amalgamated body now operates under the name of the Standards Association of Australia.

The activities of the Tariff Board, which is described in the chapter "Commerce," have an important bearing on the manufacturing industries. The Board investigates proposals for altering the tariff and for granting bounties, and considers the effect of the tariff and customs laws and of bounties on the industries of Australia.

BOUNTIES.

A brief summary of the bounties provided by the Government of the Commonwealth for the encouragement of manufacturing in Australia is shown hereunder. Particulars of bounties on primary products are shown also in order to complete the list of bounties available during the past three years.

Under the Iron and Steel Products Bounty Act, 1922, the following bounties were provided:—Fencing wire and galvanised sheets, 52s. per ton; wire netting 68s. per ton; traction engines, £40 to £90 each, according to capacity. The bounty on galvanised sheets was increased to 72s. per ton, as from 1st January, 1928. It is provided also that the bounty on traction engines is to be reduced in respect of engines containing materials or parts not produced in Australia, no bounty being payable where the cost of imported materials or parts represents more than 40 per cent. of the total factory cost.

On sulphur from Australian pyrites and other sulphide ores or concentrates, bounty is payable at the rate of 45s. per ton, and on crude shale oil produced from Australian kerosene shale the bounty is at the rate of 3½d. per gallon up to 3,500,000 gallons, decreasing to 1½d. per gallon on quantities exceeding 8,000,000 gallons.

Bounty at the rate of 4s. per gallon was provided in respect of fortified wine containing not less than 34 per cent. of proof spirit exported before 31st August, 1927; the bounty was reduced to 1s. 9d. per gallon from 1st September, 1927, and to 1s. from 8th March, 1928.

For certain kinds of canned fruit, viz., apricots, peaches, pears, and pine-apples, canned between 1st November, 1923, and 30th September, 1924, bounties ranging, according to the kind of fruit, from 6d. to 1s. per doz. tins, were paid on production, and bounties ranging from 1s. to 1s. 9d. per doz. tins, on export before 1st February, 1925.

The Meat Export Bounties Acts of 1922 and 1923 authorised the payment of bounties, at the rate of ¼d. per lb., on canned beef and on frozen beef, and 10s. per head of live cattle for slaughter, if exported within prescribed dates in those years. The bounty on cattle was granted also in respect of exports during the year ended 30th June, 1925, in terms of the Cattle Export Bounty Act, 1924.

During 1926 Acts were passed to grant bounties in respect of seed cotton and cotton yarn, and on power alcohol made from cassava, sweet potatoes, arrowroot and other cultivated starch-bearing plants approved by the Minister for Trade and Customs. The cotton bounties vary according to the grade of the product. On seed cotton it is ¾d. or 1½d. per lb., and on cotton yarn from ¼d. to 1s. per lb., according to "count." The rate of bounty on power alcohol is 4d. per gallon.

Product.	1926-27.		1927-28.		1928-29.	
	Quantity on which Bounty was Paid.	Amount of Bounty.	Quantity on which Bounty was Paid.	Amount of Bounty.	Quantity on which Bounty was Paid.	Amount of Bounty.
Iron and Steel Products—		£		£		£
Fencing Wire ... ..ton	37,549	97,626	40,025	104,066	45,580	118,508
Galvanised Sheets	26,121	67,915	22,990	65,128	28,515	102,651
Wire Netting	26,559	£0,299	21,330	72,522	20,536	69,820
Sulphur ... ..ton	7,229	16,266	9,160	20,609	4,971	11,186
Fortified Wine ... ..gal.	247,853	49,572	168,213	30,330	31,206	1,784
Canned Fruit ... ..doz. tins	...	...	...	3,102	...	...
Cotton Yarn ... ..lb.	1,273,686	30,002	1,098,124	22,237	944,692	24,663
Total, New South Wales...	...	3 51,680	...	317,994	...	328,612

PROGRESS OF FACTORIES SINCE 1901.

The statistics shown in this chapter relate only to the establishments which may be included in the definition of a factory, as shown on page 352. The figures are not a complete record of either the income or expenditure of the undertakings concerned, and are not intended to show their financial position collectively or individually. The following summary indicates the progress of the factories in New South Wales since 1901:—

Particulars.	1901.*	1911.	1920-21.	1928-29.
Number of Establishments	3,367	5,039	5,837	8,465
Average Number of Em- ployees. { Male ...	54,556	82,083	112,187	139,104
{ Female ...	11,674	26,541	32,824	46,038
{ Total ...	66,230	108,624	145,011	185,142
Salaries and Wages paid to Employees.† { Male £	‡	8,917,583	22,766,216	33,508,975
{ Female £	‡	1,130,079	2,852,375	5,035,712
{ Total £	4,952,000	10,047,662	25,618,591	38,544,687
Capital Value of Land, Buildings, and Fixtures (owned and rented) £	7,838,628	13,140,207	23,423,917	51,375,003
Value of Plant and Machinery... £	5,860,725	12,510,600	31,115,444	51,365,710
Machinery—Average Horse-power in use h.p.	44,595	148,218	312,309	648,450
Value of Materials and Fuel used £	15,637,611	34,913,564	94,713,249	111,671,134
Value added to Raw Materials in process of Manufacture £	10,010,860	19,432,447	43,128,137	73,627,441
Total Value of Output £	25,648,471	54,346,011	137,841,386	185,298,575
Average per Factory—				
Employees No.	19·7	21·6	24·8	21·9
Horse-power of Machinery ... h.p.	13·2	29·4	53·5	76·6
Land and Buildings... .. £	2,328	2,608	4,870	6,069
Plant and Machinery... .. £	1,740	2,483	5,331	6,068
Material and Fuel £	4,644	6,928	16,226	13,192
Value added in process of Manu- facture £	2,973	3,856	7,389	8,698
Total Output £	7,617	10,784	23,615	21,890
Average Time Worked months	11·32	11·55	11·52	11·72
Average per Employee—				
Salaries and Wages +... { Males £	‡	114	211	253
{ Females £	‡	43	88	110
{ Total £	81	96	182	216
Value of Materials and Fuel... £	236	321	653	603
Value added in Manufacture... £	151	179	298	398
Total Output £	387	500	951	1,001

* Excluding a number of small establishments in country districts (see Year Book, 1907-8, page 448).

† Excluding drawings of working proprietors.

‡ Information not available.

Since 1901 the number of establishments has increased by 151 per cent., and the number of employees by over 180 per cent. In 1901 the capital value of land, buildings, fixtures, plant, and machinery amounted to £13,699,353, and in 1928-29 it had increased to £102,740,713, or by 650 per cent. The value of the output in the latter year was over seven times as great as in 1901. The amount paid in wages has increased by 678 per cent., and the expenditure on materials and fuel by 614 per cent.

An investigation has been made for the purpose of comparing the value of output per head in factories of various sizes. All factories in the Metropolitan area were included in the tabulation, the results of which are shown below:—

Average number of employees.	Total employees.	Output per employee.
Under 4	2,436	£ 608
4	1,556	751
5 and under 10... ..	9,935	833
11 „ „ 20... ..	12,764	834
21 „ „ 50... ..	25,581	912
51 „ „ 100... ..	21,630	824
101 and over	69,080	946
Total	142,982	896

The figures appear to indicate an appreciable increase per head as the average number of employees increases for the first four groups, but in the groups employing over twenty workers the results are not by any means conclusive. The drop in the group “51 to 100,” and the large increase in the last group were found on detailed inquiry to be due to the fact that of the classes of factory which are found to have the highest output per head, very few appear in the “51 to 100” group, but predominate in the establishments employing over 100 employees. For this reason the figures should be used with caution.

The inclusion of factories of different kinds in the one tabulation is always likely to produce anomalies, but it is not possible to obtain a sufficient number of homogeneous establishments to compile a perfectly satisfactory experience.

GOVERNMENT FACTORIES AND WORKSHOPS.

The foregoing statement includes particulars of a number of factories and workshops under Government control in New South Wales.

The results shown by Government establishments, however, are not comparable with those of other establishments, because in cases where the former are not conducted for profit the value of the output has been estimated on the basis of the results shown by private establishments of similar type. Moreover, in Government establishments the profit would appear in reducing the price of the product rather than in showing a large margin over cost. Another fact which militates against comparison is that repair work constitutes a large proportion of the work done in these factories.

The following table shows the details of the operations of the establishments under the control of the State and Commonwealth in 1928-29, separately from those conducted by private enterprise. The number of Government establishments shows a decrease as compared with the previous year.

This is due to the fact that Commonwealth establishments in the Federal Capital Area are not included in the totals.

Particulars.				Government Workshops, etc.	Other Establishments.	Total.
Number of Establishments*	...	...	...	77	8,388	8,465
Average Number of Employees.	Male	...	...	19,789	119,315	139,104
	Female	...	...	759	45,279	46,038
	Total	...	...	20,548	161,594	185,142
Salaries and Wages paid to Employees.†	Male	...	£	5,328,366	28,180,669	33,508,975
	Female	...	£	54,967	4,980,745	5,035,712
	Total	...	£	5,383,273	33,161,414	38,544,687
Capital value of Land, Buildings, and Fixtures, owned by occupier...	...	...	...	£ 6,022,405	28,250,163	34,272,573
Rent paid	...	...	...	£ 4,984	1,135,178	1,140,162
Value of Plant and Machinery	...	...	...	£ 8,602,516	42,763,194	51,365,710
Machinery—Average Horse-power in use	h.p.	...	...	218,692	429,758	648,450
Value of Materials and Fuel used...	...	...	...	£ 4,791,032	105,880,102	111,671,134
Value added to Raw Materials in process of Manufacture	...	...	...	£ 7,623,834	66,003,607	73,627,441
Total Value of Output	...	...	...	£ 12,414,866	172,833,709	185,298,575

* Each railway workshop is counted as a separate establishment.

† Excluding drawings of working proprietors.

The Government establishments include railway and tramway workshops, electric light and power works, dockyards, printing works and factories for the production of bricks, monier pipes, meat products, canned fruits, small arms, and clothing.

CLASSIFICATION OF FACTORIES.

The statistics relating to factories, as shown in this chapter, have been compiled from returns supplied by manufacturers in terms of the Census Act of 1901. A return must be supplied in respect of every factory where four or more persons are employed or where power is used—including educational or charitable institutions, reformatories and other public institutions, except penitentiaries. Returns have not been collected in respect of small-goods-making, and farriery, and returns from bakeries were collected for the first time for the year 1927-28.

In a few industries returns are collected from all establishments, even if they have less than four employees and manual labour only is used, and the particulars of such factories are included in the statistics with the object of ascertaining the total output of the products, viz., aerated waters, bacon, butter, cheese, bricks, gas, lime, soap and candles, boots, also tanneries.

For statistical purposes a standard classification of the manufacturing industries was formulated at a conference of Australian statisticians in 1902 and revised at more recent conferences. This classification is used in the compilation of the statistics relating to factories in New South Wales.

If a manufacturing business is conducted in conjunction with an importing or a retail business particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment a separate return is obtained for each industry. If power from the same generating plant is used for more than

one industry the cost is distributed proportionately amongst such industries. The generation of electric light and power for use in other manufacturing operations, even if generated on the premises, is treated as an independent industry.

The classes are as follow:—

CLASS I.—TREATING RAW MATERIALS, THE PRODUCT OF AGRICULTURAL AND PASTORAL PURSUITS ETC.

Boiling-down, Tallow Refining, etc.
Sausage Skins, etc.
Tanneries.
Wool-scouring, Fellmongering.
Chaff-cutting, Corn-crushing, etc.

CLASS II.—OILS AND FATS, ETC.

Oil and Grease.
Soap and Candles.

CLASS III.—STONE, CLAY, GLASS, ETC.

Bricks.
Tiles.
Pipes (Earthenware and Cement).
Glass (including Bottles).
Glass (Ornamental).
Lime, Plaster, Cement, and Asphalt.
Marble, Slate, etc.
Modelling.
Pottery and Earthenware.

CLASS IV.—WORKING IN WOOD.

Boxes and Cases.
Cooperage.
Joinery.
Saw-mills.
Wood-turning, Wood-carving, etc.

CLASS V.—METAL WORKS, MACHINERY, ETC.

Agricultural Implements.
Art Metal Works.
Brass and Copper.
Cutlery.
Engineering.
Galvanized Iron-working.
Ironworks and Foundries.
Nails.
Railway Carriages, Rolling-stock, etc.
Railway and Tramway Workshops.
Metal Extraction and Ore Reduction.
Stoves and Ovens.
Tinsmithing.
Wire-working.
Gas Fittings and Meters.
Other Metal Works (including Lead Mills).
Electric Apparatus.
Lamps and Fittings.
Sewing Machines.

CLASS VI.—FOOD, DRINK, ETC.

Bacon-curing.
Biscuits.
Bread Making.
Butter Factories, Creameries, etc.
Butterine and Margarine.
Cheese Factories.
Condensed Milk.
Meat and Fish Preserving.
Confectionery.
Cornflour, Oatmeal, etc.
Flour-mills.
Jam, Fruit and Vegetable-canning.
Dried Fruits.
Pickles, Sauces, and Vinegar.
Sugar Mills.
Sugar Refining.
Aerated Waters, Cordials, etc.
Breweries.
Condiments, Coffee, Spices, etc.
Distilleries.
Bottling.
Wine Making.
Cider.
Ice and Refrigerating.
Malting.
Tobacco, Cigars, etc.
Animal, Poultry, and Stock Foods.

CLASS VII.—CLOTHING, AND TEXTILE FABRICS, ETC.

Woolen and Tweed Mills.
Silk Weaving.
Knitting Factories.
Cotton Mills.
Boots and Shoes.
Boot and Shoe Repairing.
Clothing (Stop).
Clothing (Tailoring).
Clothing (Waterproof and Oil-skin).
Dressmaking and Millinery (Makers' Material).
Dressmaking and Millinery (Customers' Material).
Dyeworks and Cleaning.
Furriers.
Hats and Caps.
Shirts, Ties, and Scarfs.
Underclothing, Whitework, Corsets.
Rope and Cordage.
Sailmaking.
Tents and Tarpaulins.
Bags and Sacks.

CLASS VIII.—BOOKS, PAPER, PRINTING, ETC.

Electrotyping and Stereotyping.
Paper-making, Paper Boxes, Bags, etc.
Photo-engraving.
Printing and Binding.
Newspapers, Magazines and Journals.
Die Sinking, Engraving, etc.

CLASS IX.—MUSICAL INSTRUMENTS, ETC.
Musical Instruments.

CLASS X.—ARMS AND EXPLOSIVES
Arms and Ammunition.
Industrial Explosives.

CLASS XI.—MOTOR AND OTHER ROAD VEHICLES AND ACCESSORIES.

Motor Vehicles and Accessories.
Other.

CLASS XII.—SHIP, BOAT, AND AIRCRAFT BUILDING AND REPAIRING.
Docks and Slips, Ship and Boat Building and Repairing.
Aircraft Building and Repairing.

CLASS XIII.—FURNITURE, BEDDING, ETC.

Bedding, Flock, and Upholstery.
Billiard Tables.
Furnishing, Drapery, etc.
Furniture and Cabinet-making.
Picture Frames.
Window Blinds.
Sea Grass, Wicker and Bamboo Furniture.
Baskets, Wickerware, and Matting.
Brooms and Brushware.
Carpets and Linoleums.

CLASS XIV.—DRUGS AND CHEMICALS.

Chemicals, Drugs, and Medicines.
Paints and Varnishes.
Inks, Polishes, etc.
Fertilisers.
Essential Oils.

CLASS XV.—SURGICAL AND OTHER SCIENTIFIC INSTRUMENTS.

Surgical Instruments.
Optical Instruments.
Other Scientific Instruments.

CLASS XVI.—JEWELLERY, TIMEPIECES, AND PLATED-WARE.

Electro-plating.
Manufacturing Jewellery, etc.
Watch and Clock Making and Repairing.

CLASS XVII.—HEAT, LIGHT, AND POWER.

Coke-works.
Electric-light and Power.
Gas-works.
Kerosene.
Matches.
Carbide.
Hydraulic Power.

CLASS XVIII.—RUBBER GOODS AND LEATHERWARE (N.E.I.).

Leather Belting, Fancy Leather, Portmanteaux, and Bags.
Rubber Goods.

CLASS XIX.—MINOR WARES (N.E.I.).

Toys.
Umbrellas.
Other Industries.

The following table summarises the operations of the factories in New South Wales and in the metropolitan district during the year 1928-29, grouped according to the class of industry:—

Class of Industry.	Establishments.	Average Number of Employees.			Materials Used.	Total Salaries and Wages exclusive of Drawing of Working Proprietors.	Value of Goods Manufactured or Work done.	Value of Production, being Value added to Raw Materials.
		Males.	Females.	Total.				
NEW SOUTH WALES								
					(000 omitted).	(000 omitted).	(000 omitted).	(000 omitted).
Treating Raw Materials, etc. ...	167	2,798	96	2,894	4,553	649	5,773	1,100
Oils, Fats, etc. ...	40	1,043	274	1,417	1,716	304	2,673	908
Stone, Clay, Glass, etc. ...	405	10,109	220	10,329	2,239	2,481	7,610	4,542
Working in Wood ...	926	9,193	221	9,414	5,006	1,962	8,245	3,166
Metal Works, Machinery, etc. ...	997	46,321	1,640	47,961	27,173	11,717	48,123	18,799
Food, Drink, etc. ...	1,195	16,038	7,109	23,207	37,851	4,712	52,117	13,414
Clothing, Textile Fabrics, etc. ...	1,834	11,022	27,348	38,370	9,622	5,260	18,687	8,873
Books, Paper, Printing, etc. ...	608	9,823	4,171	13,994	3,795	3,048	9,270	5,334
Musical Instruments, etc. ...	27	972	285	1,257	444	307	997	534
Arms and Explosives ...	3	381	13	394	19	108	162	139
Vehicles, Saddlery, Harness, etc. ...	1,124	9,121	412	9,533	1,523	1,893	4,198	2,608
Ship and Boat-building, etc. ...	49	5,390	60	5,456	937	1,525	2,674	1,665
Furniture, Bedding, etc. ...	455	5,700	1,123	6,823	2,413	1,333	4,496	2,041
Drugs and Chemicals ...	156	2,427	1,137	3,564	2,845	816	5,639	2,701
Surgical and other Scientific Instruments.	31	244	43	287	48	63	163	114
Jewellery, Timepieces, and Plated-ware.	92	693	93	786	149	153	404	249
Heat, Light, and Power ...	137	4,753	150	4,903	2,520	1,361	9,826	5,454
Rubber Goods and Leatherware n.e.i.	127	2,672	1,259	3,931	1,929	839	3,808	1,783
Minor Wares, n.e.i. ...	42	404	224	628	220	104	433	210
Total ...	8,465	139,104	46,038	185,142	105,062	38,545	185,298	73,627
METROPOLITAN DISTRICT.								
Treating Raw Materials, etc. ...	95	2,208	95	2,303	3,789	547	4,360	909
Oil, Fats, etc. ...	27	963	356	1,319	1,623	286	2,528	853
Stone, Clay, Glass, etc. ...	212	6,861	187	7,048	1,512	1,725	4,866	2,934
Working in Wood ...	376	4,893	139	5,032	3,091	1,172	5,015	1,876
Metal Works, Machinery, etc. ...	831	34,330	1,494	35,824	11,645	8,379	24,524	12,446
Food, Drink, etc. ...	580	11,262	6,385	17,647	25,792	3,600	37,510	11,108
Clothing, Textile Fabrics, etc. ...	1,461	9,665	25,302	34,967	8,872	4,836	17,156	8,126
Books, Paper, Printing, etc. ...	405	8,472	3,985	12,457	3,619	2,720	8,538	4,704
Musical Instruments, etc. ...	26	962	285	1,247	444	304	994	530
Arms and Explosives ...	2	17	8	25	5	4	16	11
Vehicles, Saddlery, Harness, etc. ...	426	6,423	267	6,690	1,122	1,346	3,009	1,850
Ship and Boat-building, etc. ...	45	3,469	58	3,502	456	1,015	1,579	1,080
Furniture, Bedding, etc. ...	397	5,340	1,110	6,450	2,311	1,262	4,280	1,928
Drugs and Chemicals ...	141	2,044	1,118	3,162	2,330	686	4,788	2,327
Surgical and other Scientific Instruments.	31	244	43	287	48	63	165	114
Jewellery, Timepieces, and Plated-ware.	90	684	93	777	143	151	396	246
Heat, Light, and Power ...	80	2,627	124	2,751	1,507	702	6,691	3,938
Rubber Goods and Leatherware, n.e.i.	86	2,531	1,240	3,780	1,886	820	3,715	1,735
Minor Wares, n.e.i. ...	37	342	219	561	202	94	400	196
Total ...	5,298	103,337	42,492	145,829	70,457	29,718	130,968	57,001

The most important group of secondary industries in the State consists of metal and machinery works, in which the number of employees, the amount of salaries and wages, and the value added to raw materials are greater than in any other group. The value of raw materials used and the value of the output are greatest in factories connected with food and drink, and in other respects this class ranks second in importance, though the clothing factories give employment to a greater number of employees.

The number of factories of each class and the number of persons employed in the various divisions of the State in 1928-29 were as follows:—

Division.	Raw Material, etc.	Stone, Clay, etc.	Wood.	Metals and Machinery.	Food, Drink, etc.	Clothing, etc.	Books, Printing.	Vehicles, Saddlery.	Furniture, etc.	Heat, Light, Power.	Other Classes.	Total.
NUMBER OF ESTABLISHMENTS												
Cumberland—												
Metropolis ...	85	212	376	831	580	1,461	405	426	397	30	485	5,298
Balance of ...	15	27	15	4	29	23	9	22	2	5	1	152
North Coast ...	...	6	88	19	97	34	23	78	8	19	8	380
Hunter and Manning ...	10	31	127	72	111	107	33	110	29	23	25	678
South Coast ...	2	14	46	9	78	21	16	42	1	10	3	251
Tablelands—												
Northern ...	7	8	40	7	29	14	9	35	2	8	7	166
Central ...	8	30	27	15	57	45	18	63	5	22	10	300
Southern ...	2	14	14	4	21	13	9	34	1	6	5	123
Western Slopes—												
North ...	...	11	29	5	28	12	8	40	...	7	2	142
Central ...	2	9	29	8	26	16	12	49	1	7	4	158
South ...	4	26	48	9	52	45	30	84	4	13	10	323
Plains—												
Northern ...	4	4	28	2	12	4	6	20	2	2	2	86
Central ...	3	1	22	2	8	3	5	21	...	...	...	67
Riverina ...	11	10	31	4	35	22	16	76	...	13	...	220
Western Division ...	4	2	6	11	32	14	9	24	3	11	3	119
Total ...	167	405	926	907	1,195	1,884	608	1,124	455	187	567	8,465
AVERAGE NUMBER OF EMPLOYEES.												
Cumberland—												
Metropolis ...	2,393	7,048	5,032	35,824	17,647	34,967	12,457	8,690	6,450	2,751	14,660	145,829
Balance of ...	176	607	173	141	225	849	47	60	5	28	5	2,811
North Coast ...	...	42	1,040	182	1,173	157	183	306	36	116	36	3,271
Hunter and Manning ...	101	484	1,212	7,204	1,336	893	381	548	245	809	2,263	15,476
South Coast ...	13	316	363	1,188	412	67	86	144	1	465	111	3,166
Tablelands—												
Northern ...	29	54	192	93	128	112	59	153	4	38	54	916
Central ...	51	1,356	114	1,532	888	394	162	241	29	256	404	4,927
Southern ...	13	103	72	379	86	222	71	143	3	42	21	1,155
Western Slopes—												
North ...	...	44	133	157	178	43	73	147	...	34	7	816
Central ...	15	67	174	128	151	53	79	174	3	35	17	896
South ...	42	129	294	211	374	424	177	379	25	64	74	2,193
Plains—												
Northern ...	22	12	197	42	41	12	34	101	13	14	4	493
Central ...	23	4	125	9	48	20	26	80	...	13	...	343
Riverina ...	85	47	225	126	844	67	75	268	...	74	...	1,817
Western Division ...	21	16	68	745	176	90	84	99	9	160	52	1,529
Total ...	2,894	10,329	9,414	47,901	23,207	38,370	13,904	9,532	6,823	4,903	17,714	185,142

Since 1927-28 the boundaries of the metropolitan area have been altered by the inclusion of Auburn, Granville Lidcombe and Parramatta, formerly classed as extra-metropolitan; the metropolitan area contains the majority of the factories. Other important manufacturing centres are in proximity to the coalfields, viz., at Newcastle in the Hunter and Manning division, at Port Kembla in the South Coast division, and at Lithgow in the Central Tablelands division. In the Western division the mining of the silver-lead deposits at Broken Hill has given rise to a number of subsidiary factories, such as ore treating and sulphuric acid plants.

In the metropolitan district, clothing factories and metal and machinery workshops give employment to a much greater number of workers than any other group, next in order being food and drink factories. In the Hunter and Manning and in the South Coast divisions, metal and machinery workshops give employment to the greatest number of employees. In the northern coastal districts butter and bacon factories are most prominent. In all the coastal areas there are many sawmills and other wood-working establishments.

Beyond the coastal belt there are few large groups of establishments. The Central Tableland is the most important division, as it contains the Lithgow ironworks and the principal cement works.

Particulars relating to a number of classes of factories are grouped with miscellaneous industries under the heading "other classes." All the factories connected with the manufacture of surgical instruments and leatherware, n.e.i., are located in the metropolitan district. Of the establishments in which oil and fats are treated, 27, with 1,319 employees, are in the metropolis; 4 with 66 employees are in the Hunter and Manning division and there are 8 small factories in other divisions. Shipbuilding and repairing is conducted in two divisions only, viz., Metropolis, 45 establishments, 3,502 employees; and Hunter and Manning, 3 with 1,946 employees. The factories producing drugs and chemicals etc. are distributed as follows:—Metropolis, 141, with 3,162 employees; and 15 with 402 employees in other divisions. Of 92 jewellery establishments, 90, with 777 employees are in the metropolitan area.

The extent of the operations of the factories in each division is indicated in the following table:—

Division.	No of Establishments.	Average Number of Persons employed.	Value of Lands and Buildings and Fixtures.	Rent paid.	Value of Plant and Machinery.	Salaries and Wages paid.	Materials used.	Fuel and power consumed.	Value of Goods Manufactured or Work done.
	No.		£	£	£	£	£	£	£
Metropolis ...	5,298	145,829	26,234,971	979,212	33,345,626	29,718,171	70,638,786	3,327,321	130,967,855
Balance of Cumberlandland.	152	2,311	430,127	9,650	580,825	406,132	1,270,898	94,240	2,047,533
North Coast ...	380	3,271	784,137	17,217	1,476,736	662,233	5,349,561	86,266	6,560,971
Hunter and Man. div.	678	15,476	3,037,005	38,740	7,736,293	3,940,930	14,560,382	1,383,555	22,454,379
South Coast ...	251	3,166	930,479	15,909	2,591,399	748,098	4,053,808	320,556	6,284,966
Northern Tableland.	166	916	143,685	6,268	246,622	157,934	417,547	24,835	729,081
Central Tableland.	300	4,927	1,061,536	14,678	2,417,981	1,162,033	2,811,938	485,411	5,629,660
Southern Tableland.	123	1,135	131,790	7,381	242,034	223,739	290,360	39,336	681,160
North-western Slopes.	142	816	139,605	7,631	366,261	164,475	538,838	25,813	882,760
Central-western Slopes.	158	896	168,831	7,496	239,157	174,621	528,174	27,724	881,564
South-western Slopes.	325	2,193	564,814	17,903	639,994	412,416	1,361,651	55,629	2,130,626
Northern Plains.	86	492	51,606	3,632	97,929	88,407	212,079	10,624	375,683
Central Plains...	67	348	30,235	2,274	94,963	55,546	108,574	4,685	213,788
Riverina ...	220	1,817	376,329	9,535	538,068	230,972	726,590	38,410	1,263,426
Western Division.	110	1,529	247,373	3,296	811,797	389,660	2,487,440	390,076	4,175,113
Total ...	8,465	185,142	34,272,573	1,140,162	51,365,710	38,544,687	105,256,635	3,314,499	185,298,575

SIZE OF ESTABLISHMENTS.

The following comparative statement shows the distribution of establishments in the metropolitan and extra-metropolitan districts, according

to the number of persons engaged. Where two or more classes of manufacturing are conducted in one factory, each branch is treated, in the compilation of the factory statistics, as if it were a separate establishment:—

Establishments employing on the average—	1901.*		1911.		1920-21.		1928-29.	
	Establish- ments.	† Em- ployees.	Establish- ments.	† Em- ployees.	Establish- ments.	† Em- ployees.	Establish- ments.	† Em- ployees.
METROPOLITAN DISTRICT.								
Under 4 employees	79	188	238	547	493	1,083	1,240	2,457
4 employees ...	105	420	179	716	230	920	391	1,564
5 to 10 employees	429	3,036	743	5,336	1,072	7,566	1,425	10,047
11 „ 20 „ ...	334	4,939	520	7,834	684	10,118	881	12,872
21 „ 50 „ ...	279	8,564	477	14,655	639	20,437	808	25,862
51 „ 100 „ ...	107	7,518	202	14,360	222	15,158	321	21,999
101 and upwards...	82	17,750	151	34,144	183	49,270	232	71,028
Total ...	1,415	42,415	2,510	77,592	3,523	104,552	5,298	145,829
REMAINDER OF STATE.								
Under 4 employees	439	1,094	538	1,282	513	1,173	1,226	2,540
4 employees ...	256	1,024	371	1,484	270	1,080	391	1,564
5 to 10 employees	768	5,333	993	6,817	864	5,896	962	6,509
11 „ 20 „ ...	294	4,236	381	5,390	380	5,351	340	4,857
21 „ 50 „ ...	142	4,612	164	4,874	181	5,569	155	4,769
51 „ 100 „ ...	30	2,086	40	2,858	43	2,903	34	2,332
101 and upwards...	23	5,430	42	8,327	63	18,487	59	16,742
Total ...	1,952	23,815	2,529	31,032	2,314	40,459	3,167	39,313
NEW SOUTH WALES.								
Under 4 employees	518	1,282	776	1,829	1,006	2,256	2,466	4,997
4 employees ...	361	1,444	550	2,200	500	2,000	782	3,128
5 to 10 employees	1,197	8,369	1,736	12,153	1,936	13,462	2,387	16,556
11 „ 20 „ ...	628	9,175	901	13,224	1,064	15,433	1,221	17,729
21 „ 50 „ ...	421	13,176	641	19,529	820	26,006	963	30,631
51 „ 100 „ ...	137	9,604	242	17,218	265	18,061	355	24,331
101 and upwards...	105	23,180	193	42,471	246	67,757	291	87,770
Total ...	3,367	66,230	5,039	108,624	5,837	145,011	8,465	185,142

* Excluding a number of small establishments in country districts (see Year Book 1907-8, page 448).

† Including working proprietors.

During 1928-29 the boundaries of the Metropolitan district were altered by the inclusion of Auburn, Granville, Lidcombe and Parramatta, and 184 factories were transferred to the Metropolitan area.

The establishments employing 10 hands or less represent 66 per cent. of the total number, the factories in the Metropolitan area being generally larger than those in other parts of the State. The average number of employees per establishment is 27.5 in the Metropolis, 12 in the remainder of the State, and 22 in the whole State; in 1901 the averages were 30, 12, and 20 respectively.

The apparent increase in the number of small factories in recent years was due partly to the inclusion of boot repairing establishments, viz., 88 with 386 employees in 1920-21 and 595 with 1,155 employees in 1928-29.

Of these, 73 with 318 employees and 437 with 848 employees in the respective years were in the Metropolitan district. The inclusion of these establishments affects also the relative position of each group of factories in the Metropolitan and in the country districts which is shown in the following statement:—

Establishments employing on the average--	Proportion of each Group to Total.							
	Metropolitan District.				Remainder of State.			
	1901.	1911.	1920-21.	1928-29.	1901.	1911.	1920-21.	1928-29.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Under 4 employees ...	5.6	9.5	14.0	23.4	22.5	21.3	22.2	38.7
4 employees...	7.4	7.1	6.5	7.4	13.1	14.7	11.7	12.3
5 to 10 employees...	30.3	29.6	30.4	26.9	39.3	39.2	37.3	30.4
11 „ 20 „ ...	23.6	20.7	19.4	16.6	15.1	15.1	16.4	10.7
21 „ 50 „ ...	19.7	19.0	18.2	15.2	7.3	6.5	7.8	4.9
51 „ 100 „ ...	7.6	8.1	6.3	6.1	1.5	1.6	1.9	1.1
101 and upwards ..	5.8	6.0	5.2	4.4	1.2	1.6	2.7	1.9
Total ...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

In the Metropolitan district the increase in the number of small workshops and factories has caused the proportion of establishments employing less than five hands to rise from 16.6 per cent. in 1911 to 30.8 per cent. in 1928-29. In the country districts the proportion of such factories has increased from 36 to 51 per cent.

MOTIVE POWER.

The power used for driving machinery in factories is derived mainly from steam. There are electric engines of considerable voltage, but the generation of their power depends upon some other class of engine. Gas is used only to a limited extent.

The following table shows the distribution of motive power through the various agencies of steam, gas, electricity, water and oil, expressed in units of horse-power:—

Year.	Establishments using Manual labour only.	Establishments using Machinery.	Horse power of Machinery (Average used).					
			Steam.	Gas.	Electricity.	Water.	Oil.	Total.
1901	1,398	1,969	42,555	1,577	330	97	36	44,595
1911	1,489	3,550	113,939	12,201	20,671	222	1,185	148,218
1920-21	835	5,002	192,816	13,242	103,846	24	2,381	312,309
1921-22	886	5,470	201,806	13,211	122,352	50	2,365	339,784
1922-23	896	5,807	211,377	14,400	124,172	48	2,472	352,469
1923-24	879	6,442	225,671	14,112	136,117	48	3,312	379,260
1924-25	930	6,976	251,042	14,817	154,849	682	3,539	424,929
1925-26	920	7,276	299,538	15,618	181,890	1,585	5,308	503,939
1926-27	827	7,395	331,036	13,896	204,094	1,041	8,778	558,945
1927-28	885	7,477	384,711	14,545	223,190	1,190	12,495	636,131
1928-29	805	7,660	376,737	14,531	236,255	5,869	15,058	648,450

The proportion of factories in which machinery is used increased from 58 per cent. in 1901 to 70 per cent. in 1911, and to 90 per cent. in 1928-29. The power actually used in operating the machines increased from 148,218 horse-power in 1911 to 648,450 horse-power, in 1928-29. The greatest development occurred in electrical power, which has increased nearly twelve-fold since 1911, while steam power has increased by 222 per cent. The proportions of each kind of power in 1928-29 were:—Steam 58 per cent., gas 2 per cent., electricity 37 per cent., and oil and water 3 per cent.; the corresponding proportions in 1911 being steam 77 per cent., gas 8 per cent., electricity 14 per cent., and oil and water 1 per cent. The hydro-electric power station at Burrinjuck was responsible for the increase in water power used during 1928-29.

The full capacity of the factory machinery in 1928-29 was 1,052,575 horse-power, viz.: Steam 648,285, gas 18,861, electricity 345,600, water 19,564, oil 20,265.

CAPITAL VALUE OF PREMISES.

With regard to capital permanently invested in manufacturing industries, particulars are available only of the value of the land, buildings, and fixtures which are the property of the occupier. If they are not the property of the occupier the rental value is recorded. In the following table, the capital value of the rented premises is computed by capitalising the rent paid at fifteen years' purchase.

The following statement shows the extent to which the capital value of the premises used for manufacturing purposes has increased since 1901, also the advance in the value of plant and machinery installed:—

Year.	No. of Establishments.	Capital Value of Premises (owned and rented).	Value of Machinery, Tools, and Plant.	Average per Establishment.	
				Value of Premises.	Value of Machinery, Tool and Plant.
		£	£	£	£
1901*	3,267	7,838,628	5,860,725	2,328	1,740
1911	5,039	13,140,207	12,510,600	2,608	2,483
1920-21	5,837	28,428,917	31,115,444	4,870	5,331
1921-22	6,356	32,052,303	35,229,530	5,043	5,543
1922-23	6,703	34,630,984	37,579,386	5,166	5,606
1923-24	7,321	37,979,192	41,141,890	5,188	5,620
1924-25	7,906	41,351,080	43,553,900	5,230	5,509
1925-26	8,196	43,954,312	45,994,534	5,363	5,610
1926-27	8,222	46,950,706	48,659,375	5,710	5,918
1927-28	8,362	49,414,310	50,489,674	5,909	6,038
1928-29	8,465	51,375,003	51,365,710	6,069	6,063

* Excluding a number of small country establishments.

The premises owned by the occupiers in 1928-29 were valued at £34,272,573 and rented premises on the basis described above at £17,102,430, the corresponding values in 1920-21 being £19,111,772 for premises owned by

occupiers and £9,817,145 for rented premises. The values shown for 1928-29 are those appearing in the firms' books after allowing for depreciation.

A marked improvement in the class of buildings used as factories has been a feature of the progress of the industries. Unsatisfactory premises are being eliminated and in the construction of new factory buildings provision is made for ventilation and good lighting, in accordance with the requirements of the Factories and Shops Acts, and for the general comfort and welfare of the employees, as well as for the expeditious handling of materials and products.

SALARIES AND WAGES.

The amount of salaries and wages quoted throughout this chapter is exclusive of amounts drawn by working proprietors.

The salaries and wages paid to employees in factories amounted in 1928-29 to £38,544,687. Male workers, including juveniles, received £33,508,975, equal to £252 11s. 1d. per head; and female workers, including juveniles, £5,035,712, or £110 7s. 10d. per head.

A comparison of the total amount of salaries and wages paid since 1901 is given in the next table, together with the average amount received per employee and the average time worked in all factories. Similar information regarding each class of industry is published in Part "Factories and Mines" of the Statistical Register.

Year.	Salaries and Wages (exclusive of drawings by Working Proprietors)				Level of Average Wages per Employee.			Weighted Average time Worked, per Factory.
	Total.	Average per Employee including Juveniles.			1911 = 1000.			
		Males.	Females.	Total.	Males.	Females.	Total.	
	£	£ s. d.	£ s. d.	£ s. d.				months.
1901	4,952,000	*	*	81 0 0	*	*	839	11·32
1911	10,047,662	114 4 9	43 2 1	96 7 1	1000	1000	1000	11·55
1920-21	25,618,591	210 19 10	87 12 2	182 7 10	1847	2032	1893	11·52
1921-22	26,783,242	218 0 6	91 12 4	186 4 3	1908	2125	1933	11·53
1922-23	27,135,647	213 19 7	97 4 8	184 12 4	1873	2256	1916	11·47
1923-24	29,772,894	225 14 3	96 4 5	194 1 7	1976	2252	2014	11·63
1924-25	31,520,849	230 5 9	99 0 11	198 4 2	2016	2293	2057	11·68
1925-26	33,566,546	233 19 5	101 5 11	201 0 11	2048	2350	2086	11·70
1926-27	37,092,196	245 8 0	107 6 2	210 10 10	2148	2483	2185	11·75
1927-28	37,818,141	250 13 8	110 4 7	215 4 9	2194	2557	2234	11·67
1928-29	38,544,687	252 11 1	110 7 10	216 4 7	2211	2561	2244	11·72

* Not available.

Between 1911 and 1928-29 the average of the wages paid to males, including juveniles, increased by over 121 per cent., the proportion of boys under 16 showing little alteration. The average amount paid to women and girls increased by 156 per cent., and the proportion of girls under 16 increased from 8.5 per cent. of the female employees to 11.2 per cent.

The average earnings of males were highest in factories producing drugs, chemicals, etc., and heat light and power, the average amounts paid per male worker, including the management staff, in 1928-29 being £294 12s. 4d. and £284 5s. 8d. respectively.

Of the female workers, those employed in the clothing industries, and in the printing and bookbinding trades received in 1928-29 an average wage of £110 10s. and £109 7s. 9d. respectively.

VALUE OF MATERIALS AND OUTPUT.

The following statement shows the value of materials and fuel used, the value of production, and the amount paid in wages in factories in various years since 1901:—

Year.	Value of—					Salaries and Wages paid, exclusive of Drawings of Working Proprietors.	Balance (Output, less Materials and Wages).
	Materials Used.	Fuel Consumed, including Motive-power Rented.	Goods Manufactured or Work Done.	Production, being Value added to Raw Materials.	Production per Employee.		
	(ooo omitted.)	(ooo omitted.)	(ooo omitted.)	(ooo omitted.)		(ooo omitted.)	(ooo omitted.)
	£	£	£	£	£	£	£
1901	15,141	496	25,648	10,011	151·2	4,952	5,959
1911	33,671	1,243	54,346	19,432	178·9	10,048	9,384
1920-21	91,104	3,609	137,841	43,128	297·4	25,619	17,509
1921-22	82,090	3,984	132,820	46,746	313·9	26,783	19,963
1922-23	77,233	4,024	132,853	51,596	338·2	27,135	24,461
1923-24	85,568	5,130	146,359	55,661	348·6	29,773	25,888
1924-25	94,955	5,610	159,609	59,044	356·2	31,521	27,523
1925-26	99,303	5,822	169,963	64,838	372·5	33,566	31,272
1926-27	102,983	6,470	179,302	69,849	381·3	37,092	32,757
1927-28	103,265	6,333	181,403	71,805	393·2	37,818	33,987
1928-29	105,357	6,314	185,298	73,627	397·8	38,544	35,083

The value of the output has grown from £25,648,471 in 1901 to £185,298,575 in 1928-29, and the value of production from £10,010,860 to £73,627,441. The cost of materials used and fuel consumed in the latter year amounted to £111,671,134, and salaries and wages to £38,544,687.

Thus on the average, out of every hundred pounds worth of goods produced in manufacturing in 1928-29, the materials and the fuel cost £60 6s., while the employees received £20 16s., leaving a balance of £18 18s. for the payment of overhead charges and other expenses, and for profits. The corresponding amounts for the first year shown in the table were £61, £19 6s., and £19 14s. respectively.

There are, of course, numerous items to be considered before profits accrue. The cost of these cannot be determined accurately, but from the information available it is possible to make a rough estimate with regard to such items as depreciation and interest on capital invested in factories other than Government establishments.

Excluding Government workshops and factories from consideration, the capital value of land, buildings and fixtures in 1928-29 amounted to £28,250,000. Municipal valuations indicate that the unimproved value of property is about 35 per cent. of the improved value, and on this basis the value of the buildings and fixtures would be about £18,362,000.

Factory buildings probably depreciate in value more quickly than any other class of buildings, and therefore 4 per cent. may be regarded as a very moderate rate to be allowed yearly on that account. Depreciation of plant is more rapid, and varies considerably in different industries. As a result of inquiries made by proprietors of some of the largest factories in various industries and of the managers of State undertakings, it is estimated that 6½ per cent. is a fair average allowance for depreciation of plant and machinery. The allowance to be made for depreciation of buildings and fixtures would therefore be about £734,000, and on plant and machinery £2,780,000, or a total of £3,514,000.

In addition to the allowance for depreciation, an allowance should be made for interest on invested capital. Excluding Government workshops and factories the capital value of machinery and plant is £42,763,000, and

in land and buildings, £28,250,000, to this must be added the capital represented by materials awaiting treatment and by manufactured goods awaiting disposal. Assuming that the average value of materials on hand awaiting treatment represents generally about 21·5 per cent. (equal to about two and a half months' supply) of the value of all material used during the year, approximately £22,979,000 would have been invested in this way during 1928-29. The value of unsold stocks on hand is taken to be about 5 per cent. of the total value of the output, and this would represent an investment of capital to the extent of £8,644,000. The total capital invested in 1928-29, therefore, may be set down at about £102,636,000. Interest on this amount at 6 per cent., which could have been obtained by investment in Government loans, would be £6,158,000. The allowance to be made for depreciation and interest is estimated, on this basis, to be £9,672,000, to which must be added cost of rented premises, £1,135,000, so that £10,807,000 should be deducted in respect of charges which must be taken into account before profits can be estimated. This would reduce the balance remaining after payment of wages, material and fuel to £23,035,000, equal to 13·2 per cent. of the total output and such items of expense as insurance, rates and taxes, etc., would still have to be paid.

The proportions of the items which made up the total value of output of the manufacturing industries in various years since 1901 are shown below:—

Year.	Proportion per cent. of Total Value of Output absorbed by—				Total.
	Materials.	Fuel.	Salaries and Wages.	Overhead Charges, Profit, etc.	
1901	59·0	2·0	19·3	19·7	100
1911	61·9	2·3	18·6	17·2	100
1920-21	66·1	2·6	18·6	12·7	100
1921-22	61·8	3·0	20·2	15·0	100
1922-23	58·2	3·0	20·4	18·4	100
1923-24	58·5	3·5	20·3	17·7	100
1924-25	59·5	3·5	19·7	17·3	100
1925-26	58·4	3·4	19·7	18·5	100
1926-27	57·4	3·6	20·7	18·3	100
1927-28	56·9	3·5	20·8	18·8	100
1928-29	56·9	3·4	20·8	18·9	100

After the outbreak of war, a decline occurred in the proportions absorbed by salaries and wages, and by other expenses and profits, but whereas a recovery in wages began in 1918-19, the proportion left for charges and profits continued to diminish until 1920-21. In the following year, however, it showed a substantial increase, and by 1922-23 the ratio had risen above the pre-war level. Then the proportionate cost of materials and fuel increased, and, notwithstanding a relative decline in respect of wages, the proportion for expenses, profit, etc., became somewhat smaller until 1925-26, when it rose to a point higher than it had been in any of the last fifteen years. There was a slight fall in 1926-27 which was more than made good in 1927-28, when the ratio of salaries and wages reached its highest level. The proportion for expenses, profit, etc., showed a further slight increase in 1928-29. The proportion of value of output absorbed by fuel was 2·3 per cent. in 1911, and 3·4 in 1928-29—an increase of practically 50 per cent. due partly to the growing use of power-driven machinery and largely to increases in the price of coal, coke and wood.

The following table shows, in each class of industry, the proportion which the value of goods manufactured and of work done, the cost of materials used and of fuel consumed, the amount paid in wages and salaries, bear to the total value of output, 1928-29:—

Class of Industry.	Proportionate Value of Manufactured Goods represented by:—			
	Materials used.	Fuel, etc.	Salaries and Wages.	Balance.
	per cent.	per cent.	per cent.	per cent.
Treating Raw Materials, etc.	79.0	1.9	11.2	7.9
Oils and Fats, etc.	64.3	1.9	11.4	22.4
Stone, Clay, Glass, etc.	30.2	10.7	32.6	27.1
Working in Wood	60.8	0.8	23.8	14.6
Metal Works, Machinery, etc.	56.6	4.3	24.3	14.8
Food and Drink, etc.	72.8	1.5	9.0	16.7
Clothing and Textile Fabrics, etc.	51.6	0.9	28.1	19.4
Books, Paper, Printing, etc.	41.1	1.4	32.8	24.7
Musical Instruments, etc.	44.9	1.6	30.8	22.7
Arms and Explosives	11.7	2.5	66.6	19.2
Vehicles, Saddlery, Harness, etc.	36.4	1.5	42.9	19.2
Ship and Boat-building, etc.	35.2	2.5	57.0	5.3
Furniture, Bedding, etc.	53.7	0.9	29.6	15.8
Drugs and Chemicals	50.6	1.5	14.5	33.4
Surgical and other Scientific Instruments	20.2	1.1	38.5	31.2
Jewellery, Timepieces and Plated-ware	36.9	1.4	37.9	23.8
Heat, Light and Power	28.8	17.7	13.9	41.6
Rubber Goods and Leatherware, N.E.I.	50.8	2.4	22.0	24.8
Minor wares, N.E.I.	51.0	0.6	23.9	24.5
Total	56.9	3.4	20.8	18.9

The ratio of the total amount of wages to the value of production, that is, the value added to raw materials varies considerably in different industries, as will be seen in the following table, relating to the last six years, but remains practically constant for the industries as a whole.

Class of Industry.	Ratio of Amount of Wages Paid to Value of Production					
	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Treating Raw Materials, etc.	51.9	59.8	54.0	51.4	57.4	59.0
Oils, Fats, etc.	34.4	32.9	28.9	32.4	35.5	33.7
Stone, Clay, Glass, etc.	53.0	56.9	55.4	54.5	55.3	54.6
Working in Wood	61.0	65.5	64.6	62.6	61.7	61.9
Metal Works, Machinery, etc.	63.7	63.0	60.9	64.1	64.7	62.0
Food, Drink, etc.	35.4	35.3	34.9	34.0	34.1	35.1
Clothing, Textile Fabrics, etc.	59.3	58.1	57.9	58.9	58.4	59.3
Books, Paper, Printing, etc.	57.4	59.2	57.4	57.7	56.5	57.1
Musical Instruments, etc.	63.9	61.1	61.9	53.0	54.8	57.5
Arms and Explosives*	39.7	40.1	41.5	37.1	37.7	37.5
Vehicles, Saddlery, Harness, etc.	67.2	71.2	69.1	67.8	69.0	69.1
Ship and Boat-building, etc.	90.7	93.0	90.5	95.5	86.5	91.6
Furniture, Bedding, etc.	67.3	63.2	64.3	60.2	63.7	65.3
Drugs and Chemicals	28.2	27.8	27.1	27.6	29.0	30.2
Surgical and other Scientific Instruments	60.8	58.9	66.2	60.7	63.4	55.2
Jewellery, Timepieces, and Plated-ware	62.3	64.2	61.6	59.7	57.4	61.5
Heat, Light, and Power	30.1	27.2	23.5	27.7	25.3	25.0
Rubber Goods and Leatherware, N.E.I.	61.1	58.9	55.0	57.4	55.7	47.1
Minor Wares, N.E.I.	61.6	59.0	51.4	64.7	50.3	49.6
Total*	53.5	53.4	51.9	53.1	52.6	52.3

*Excluding Commonwealth Small Arms Factory.

FUEL CONSUMED.

The value of the fuel consumed in factories in 1928-29 was £3,986,423. Coal is used extensively in all large industries with the exception of smelting, where coke is used. The quantity and value of each kind of fuel used in the various industries in 1928-29 were as follows:—

Industry.	Coal.		Coke.		Wood.		Total value of Fuel consumed including Motive Power rented.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	tons.	£	tons.	£	tons.	£	£
Treating Raw Materials, etc.	44,203	69,389	230	391	3,589	2,743	106,644
Oils and Fats, etc. ...	18,742	29,880	1,398	1,893	147	124	49,590
Stone, Clay, Glass, etc. ...	462,804	506,581	5,188	9,502	51,604	42,173	814,729
Working in Wood ...	4,003	5,233	181	219	17,304	7,091	66,832
Metal Works, Machinery, etc.	488,412	391,136	562,592	1,042,050	3,122	3,680	2,078,120
Food, Drink, etc. ...	203,956	298,943	29,523	43,927	72,922	79,307	780,910
Clothing, Textile Fabrics, etc.	23,912	35,858	2,643	4,269	361	491	176,661
Books, Paper, Printing, etc.	5,488	9,453	636	1,241	192	218	133,765
Musical Instruments, etc. ...	3,400	5,547	52	122	...	...	15,886
Arms and Explosives ...	1,226	797	...	...	...	...	4,002
Vehicles, Saddlery, etc. ...	1,533	3,033	647	1,166	1,186	1,220	62,204
Shipbuilding and Repairing	11,365	16,440	4,945	12,418	13	17	66,175
Furniture, Bedding, etc. ...	4,233	6,755	234	384	2	5	38,298
Drugs and Chemicals ...	14,525	29,667	7,292	8,685	2,350	1,895	82,007
Surgical and Scientific Instruments.	4	6	10	15	...	...	1,770
Jewellery, Timepieces and Plated-ware.	5	9	322	714	11	11	5,671
Heat, Light and Power ...	898,775	1,136,597	163,482	150,331	13,128	11,738	1,738,345
Rubber Goods, Leatherware, N.E.I.	34,322	19,468	571	819	598	647	90,251
Minor Wares, N.E.I. ...	327	496	50	65	872	654	2,639
Total ...	2,201,235	2,556,288	779,996	1,278,211	167,401	151,924	6,314,499

NOTE.—The above table does not include 869,257 tons of coal used for making coke or 661,878 tons used for making gas during 1928-29.

The fuel used in factories during the year 1921-22 consisted of coal, 1,654,262 tons, coke 548,418 tons, and wood 134,121 tons. Since that year the quantity of coal has increased by 33 per cent., coke by 42 per cent., and wood by 25 per cent.

The coke used in smelting works is specially prepared for the purpose and is much more costly than the coke obtained as a by-product in making gas and used by the gas companies at the place of production.

EMPLOYMENT IN FACTORIES.

The number of factory employees as stated in this chapter is the sum of the average numbers employed in each factory during the year specified. In the case of any factory which was not in operation during the whole of the year, the number included is the average number engaged during the time when work was in progress. The total number of employees on this basis as shown in the following table was 185,142. Weighting the numbers in each industry by the average time worked per factory in that industry this number is reduced to 180,822, representing the equivalent number of employees working for a full year.

A comparative statement of number of persons engaged in the various classes of manufacturing industries is shown below:—

Class of Industry.	Persons engaged, including Working Proprietors.				
	1901.	1911.	1920-21.	1927-28.	1928-29.
Treating Raw Materials, etc. ...	2,981	3,890	3,840	3,097	2,894
Oils and Fats, etc. ...	698	889	1,584	1,410	1,417
Stone, Clay, Glass, etc. ...	3,102	5,695	8,829	10,622	10,329
Working in Wood ...	5,105	8,181	9,157	9,623	9,414
Metal Works, Machinery, etc. ...	13,831	22,862	36,860	46,814	47,961
Food, Drink, etc. ...	11,372	14,050	17,874	22,725	23,207
Clothing, Textile Fabrics, etc. ...	14,497	26,504	28,298	37,392	38,370
Books, Paper, Printing, etc. ...	5,573	9,134	10,527	13,966	13,994
Musical Instruments, etc. ...	226	387	642	1,188	1,257
Arms and Explosives ...	11	33	850	378	394
Vehicles, Saddlery, Harness, etc. ...	2,541	4,416	5,267	9,905	9,533
Ship and Boat Building, etc. ...	1,541	2,429	5,175	5,883	5,450
Furniture, Bedding, etc. ...	2,140	3,534	4,312	6,824	6,823
Drugs and Chemicals ...	450	1,460	2,659	3,490	3,564
Surgical and other Scientific Instruments ...	69	96	206	307	287
Jewellery, Timepieces, and Plated-ware ...	165	753	828	773	786
Heat, Light, and Power ...	1,417	2,795	5,038	4,734	4,903
Leatherware, N.E.I. ...	117	461	919	3,915	3,931
Minor Wares, N.E.I. ...	391	1,055	2,146	514	628
Total ...	66,230	108,624	145,011	182,660	185,142

Owing to an amendment in the classification, the figures relating to individual classes for the last two years are not strictly comparable with those for earlier years. Certain establishments formerly included in the class, musical instruments, etc., or with heat and power works are now in the metal and machinery group; others previously with minor wares have been transferred to the rubber goods and leatherware group, and bakeries were included for the first time in 1927-28.

Of the industries which give employment to the greatest number of workers, the increase in employment has been most marked in the metal and machinery group, in which the number engaged was more than doubled between 1911 and 1928-29.

Since 1901 the increase in the number of employees in factories has generally been greater proportionately than the increase in the total population. The very great proportionate growth of factories between 1906 and 1911, and the slackening between 1911 and 1916, are shown in the following comparison. The year 1928-29 shows an increase of 2,482 in the number of persons employed. As previously stated, however, the 1927-28 figures include bakeries for the first time, employing 1,730, so that there was a virtual decrease of 2,263 in that year.

Period.	Increase in Factory Employees.		Increase in Population— Average Annual Rate.
	Number.	Average Annual Rate.	
1901-06 (5 years)...	11,592	per cent.	per cent.
1906-11 (5 years)...	30,802	3·3	1·7
1911-16 (4½ years)...	7,777	6·9	2·6
1916-21 (5 years)...	28,610	1·5	2·4
1921-26 (5 years)...	29,090	4·5	2·1
1926-27 (1 year) ...	9,092	3·7	2·0
1927-28 (1 year) ...	(-) 2,263*	5·2	2·3
1928-29 (1 year) ...	2,482	(-) 1·2	2·3
		1·4	1·6

(-) Denotes decrease.

* See context above table.

During 1923-29 the number of persons employed in the metropolitan factories was 145,829, and there were 39,313 in the remainder of the State, which includes such centres as Newcastle, Broken Hill, Lithgow, Port Kembla, Goulburn, and Bathurst. A comparative statement on page 357 shows that the number is increasing at a faster rate in the metropolitan than in the extra-metropolitan districts.

Weighted Average Time Worked per Factory.

The average time worked in the different classes of factories during various years since 1911 is shown below. The figures have been calculated on the basis of the average number of employees engaged in each factory during the period it was in operation in the year specified.

Class of Industry.	1911.	1920-21.	1925-26.	1926-27.	1927-28.	1928-29.
	Months.	Months.	Months.	Months.	Months.	Months.
Treating Raw Materials, etc. ...	10-11	10-83	10-71	11-03	11-31	11-23
Oils and Fats, etc. ...	11-38	11-78	11-85	11-84	11-74	12-00
Stone, Clay, Glass, etc. ...	11-56	11-48	11-68	11-67	11-72	11-59
Working in Wood ...	10-82	11-00	11-09	11-09	11-03	10-98
Metal Works, Machinery, etc.	11-70	11-49	11-91	11-94	11-82	11-86
Food, Drink, etc. ...	11-10	11-07	11-34	11-48	11-20	11-44
Clothing, Textile Fabrics, etc.	11-64	11-70	11-76	11-82	11-70	11-76
Books, Paper, Printing, etc. ...	11-89	11-87	11-91	11-94	11-91	11-95
Musical Instruments, etc ...	12-00	11-77	11-08	11-97	11-99	12-00
Arms and Explosives ...	8-21	12-00	12-00	12-00	12-00	12-00
Vehicles, Saddlery, Harness, &c.	11-83	11-60	11-77	11-52	11-69	11-68
Ship Building, etc. ...	11-98	11-98	11-98	12-00	11-99	11-99
Furniture, Bedding, etc. ...	11-58	11-73	11-85	11-83	11-79	11-74
Drugs and Chemicals ...	11-77	11-78	11-88	11-94	11-82	11-91
Surgical Instruments, etc. ...	12-00	12-00	12-00	12-00	12-00	12-00
Jewellery, etc. ...	11-98	11-65	11-94	12-00	11-90	11-83
Heat, Light, and Power ...	11-81	11-75	11-57	11-95	11-79	11-93
Leatherware, N.E.L. ...	11-91	11-90	11-90	11-95	11-46	11-89
Minor Wares, N.E.L. ...	11-51	11-82	11-83	11-87	11-74	11-45
Mean of all Industries ...	11-55	11-52	11-70	11-75	11-67	11-72

In some industries, *e.g.*, those engaged in treating raw pastoral products, the work is seasonal, and factories may be closed during certain periods of each year. In other industries operations are continuous throughout the whole year, and periods of slackness, due to seasonal and other conditions, result in a reduction of the number of employees, but not in the average time as shown in the table. Therefore, these figures do not reflect the regularity or intermittency of employment in relation to factory employees; but they may be used, in combination with the average number of employees, to measure roughly the working time spent in producing each year's output.

Nature of Employment.

Of all the persons engaged in manufacturing industries during the year 1928-29 approximately 84 per cent. were actually employed in the different processes of manufacture, or in the sorting and packing of finished articles. The following statement shows the number and the nature of employment of the persons engaged in each class of industry in that year:—

Class of Industry.	Working Proprietors, Managers, and Overseers.	Clerks, etc.	Engine-drivers, etc.	Workers in Factory, Mill, etc.	Carters, Messengers, and others.	Persons regularly employed at their own homes.	Total.
Treating Raw Materials, etc. ...	285	124	82	2,306	97	...	2,894
Oils, Fats, etc.	89	219	28	1,056	25	...	1,417
Stone, Clay, Glass, etc.	741	452	185	8,822	129	...	10,329
Working in Wood... ..	1,225	528	317	7,119	225	...	9,414
Metal Works, Machinery, etc. ...	2,426	2,160	564	42,665	146	...	47,961
Food, Drink, etc.	1,746	2,053	746	18,227	431	4	23,207
Clothing, Textile Fabrics, etc. ...	2,678	983	51	34,243	127	278	38,370
Books, Paper, Printing, etc. ...	1,173	1,291	28	11,337	159	6	13,994
Musical Instruments	52	137	11	1,051	6	...	1,257
Arms and Explosives	19	29	7	332	7	...	394
Vehicles, Saddlery, Harness, etc..	1,204	715	5	7,552	57	...	9,533
Ship and Boat Building, etc. ...	209	336	85	4,778	42	...	5,450
Furniture, Bedding, etc.	695	253	18	5,784	71	...	6,823
Drugs and Chemicals	301	445	57	2,725	36	...	3,564
Surgical and other Scientific Instruments.	34	32	...	220	1	...	287
Jewellery, Timepieces, and Plated ware.	128	45	...	590	18	5	786
Heat, Light, and Power	384	215	809	3,467	28	...	4,903
Rubber Goods and Leatherware, N.E.I.	308	249	21	3,325	28	...	3,931
Minor Wares, N.E.I.	56	32	...	537	3	...	628
Total	13,753	10,300	3,014	156,136	1,646	293	185,142
Males	12,834	6,101	...	115,494	1,598	63	139,104
Females... ..	919	4,199	3,014	40,642	48	230	46,088

The principal classes, metal works, food and drink and clothing, textiles, etc., show the greatest increase as compared with the previous year, whilst a number of the smaller classes show decreases in the number of hands employed.

The status of workers employed varied greatly in the nineteen standard classes of manufacturing industry. The average proportion of working

proprietors, managers, and overseers was 7.4 per cent. for all classes, but it varied from 3.8 per cent. in ship and boat building to 16.3 per cent. in those making jewellery, time-pieces, and plated ware.

Amongst the males the proportion of working proprietors, etc., was 9.2 per cent., and of workers in the factories 83.0 per cent. The corresponding proportions amongst the females were 2.0 per cent. and 88.3 per cent. respectively.

Only 5.6 per cent. of the employees were clerical workers, and of these 40.7 per cent. were females. The practice of giving out work at piece rates is very limited. Workers employed in their own homes represented under 2 per thousand of the total number employed, and nearly all were engaged by clothing manufacturers.

Sex Distribution of Employees.

The following table shows the number of males and of females employed in factories, and the ratio to the male and female population respectively during various years since 1901:—

Year.	Males.		Females.		Total.	
	Average Number.	Average per 1,000 of Male Population.	Average Number.	Average per 1,000 of Female Population.	Average Number.	Average per 1,000 of Mean Population.
1901	54,556	76.2	11,674	17.9	66,230	48.5
1911	82,083	94.5	26,541	33.3	108,624	65.2
1920-21	112,187	105.2	32,824	32.1	145,011	69.4
1921-22	112,362	103.6	36,514	35.0	148,876	69.9
1922-23	115,287	104.1	37,299	35.0	152,586	70.2
1923-24	121,845	108.1	37,829	34.9	159,674	72.2
1924-25	126,493	110.1	39,264	35.6	165,760	73.6
1925-26	132,239	112.9	41,862	37.1	174,101	75.8
1926-27	138,309	115.6	44,584	39.0	183,193	78.0
1927-28	137,936	112.7	44,724	38.0	182,660	76.1
1928-29	139,104	111.5	46,038	38.4	185,142	75.6

Manufacturing industries provide employment for 7.6 per cent. of the total population; more than 11 per cent. of males find employment therein, but less than 4 per cent. of females. The proportion of males has increased by 18 per cent. since 1911, and the proportion of females has fluctuated, but shows a tendency to increase.

The Factories and Shops Act imposes certain restrictions on the employment of women and of young persons, and the Minister for Labour and Industry may prohibit the employment of boys under 16 or of females in connection with dangerous machinery or in any work in which he considers it undesirable that they should be employed.

The following table shows, for the years 1911, 1920-21, and 1928-29, the industries in which women and girls have been employed in greatest numbers, and the ratio to every 100 males employed in the same industries. Only workers in the factory have been included, and managers, overseers, clerks, messengers, etc., have been excluded:—

Industry.	Average Number of Women and Girls employed in Factory.			Number of Women and Girls per 100 Males employed in Factory.		
	1911.	1920-21.	1928-29.	1911.	1920-21.	1928-29.
Food, etc.—						
Biscuits	690	822	940	121	102	142
Confectionery	442	1,190	1,629	70	113	139
Jam and fruit canning, pickles, etc...	610	951	917	150	122	133
Condiments, etc.	203	545	673	122	125	184
Tobacco	746	1,262	1,392	128	131	152
Other food, etc.	459	325	705	8	6	9
Clothing, etc.—						
Woollen mills	561	793	1,908	172	101	207
Hosiery and knitting factories	1,490	1,186	3,343	61	663	383
Boots and shoes	1,490	1,612	2,262	61	61	75
Clothing, dressmaking, and millinery	12,475	11,080	11,833	488	620	643
Hats and caps	995	815	1,178	227	160	227
Shirts, underclothing, etc.	1,599	2,719	4,296	1,859	2,124	1,672
Other clothing	281	521	1,020	73	76	107
Paper, paper bags and boxes	727	827	1,521	201	119	148
Printing and bookbinding	1,387	1,711	1,865	29	34	30
Leatherware	56	279	509	16	57	103
Rubber goods	59	344	618	28	57	36
Other industries	1,592	2,620	4,033	3	4	5
Total	24,387	29,602	40,642	36	32	35

The table shows that women workers are concentrated and predominate in industries relating to the preparation of food and clothing, and the "lighter" manufactures.

Child Labour.

The Factories and Shops Act prescribes that no child under 13 years may be employed in a factory, and that a child between the ages of 13 and 14 years may not be employed unless by special permission of the Minister for Labour and Industry. Moreover, the Public Instruction Act prescribes that children must attend school until they reach the age of 14 years, but exemptions from attendance may be granted in special cases, e.g., if the Minister for Education is satisfied that exemption is necessary or desirable, or in the case of children aged 13 years, if they have attained a certain standard of education.

In regard to children under 16 years of age the Factories and Shops Act authorises the issue of regulations prohibiting the employment of children under 16 years of age in specified classes of factories unless the occupier of the factory has obtained a certificate by a legally qualified medical practitioner that the child is fit for employment in that factory.

Special permits to children between the ages of 13 and 14 years numbered 162 in 1929, viz., to 84 boys and 78 girls, all in the metropolitan district.

During the same year 9,134 certificates of fitness were issued to children under 16 years of age, viz., 3,974 to boys and 5,160 to girls.

Ages of Employees.

The age distribution of the male employees in factories in 1928-29 was as follows:—Boys under 16 years numbered 4,055, or 2.9 per cent.; 24,155, or 17.4 per cent., were between 16 and 21 years; and 110,894, or 79.7 per cent., were adults. Of the females, the number and proportion in the respective groups were 5,173, or 11.2 per cent.; 18,098, or 39.3 per cent.; and 22,767, or 49.5 per cent.

The following table shows the average number of persons under and over the age of 16 years engaged in the factories in various years since 1907, the first year for which statistics respecting the employment of children are available:—

Year.	Persons Employed in Factories, including Working Proprietors.								
	Aged 16 years and over.			Children under 16 years of age.			Total.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1907	63,547	18,634	82,181	2,406	1,880	4,286	65,953	20,514	86,467
1911	79,609	24,274	103,883	2,474	2,267	4,741	82,083	26,541	108,624
1920-21	108,514	29,214	137,728	3,673	3,610	7,283	112,187	32,824	145,011
1921-22	108,451	32,364	140,815	3,911	4,150	8,061	112,362	36,514	148,876
1922-23	111,286	33,011	144,297	4,001	4,288	8,289	115,287	37,299	152,586
1923-24	117,717	33,791	151,508	4,128	4,038	8,166	121,845	37,829	159,674
1924-25	122,528	35,008	157,536	3,968	4,256	8,224	126,496	39,264	165,760
1925-26	127,712	37,174	164,886	4,527	4,688	9,215	132,239	41,862	174,101
1926-27	133,715	39,883	173,598	4,594	5,001	9,595	138,309	44,884	183,193
1927-28	133,920	39,977	173,897	4,016	4,747	8,763	137,936	44,724	182,660
1928-29	135,049	40,865	175,914	4,055	5,173	9,228	139,104	46,038	185,142

During the year 1928-29 there was an increase of 1,168 in the number of male employees and of 1,314 in the number of females. Of those aged 16 years and over there was an increase of 1,129 males and 888 females; and there were 465 more children in the factories than in the previous year, the number of boys having increased by 39, the number of girls by 426.

Of 9,228 juveniles engaged in manufacturing, 8,285 were employed within the metropolitan area. A review of the statistics of juveniles shows that up to the year 1914 the boys outnumbered the girls, but in more recent years the number of girls was the greater. About 94 per cent. of the girls and 85 per cent. of the boys were working in Sydney and suburbs.

The following statement shows the proportion of boys and girls amongst the factory employees in various years since 1907, also the proportion of children aged 13 and under 16 years who are employed in factories:—

Year.	Children employed in Factories.			
	Boys per 1,000 Male Employees.	Girls per 1,000 Female Employees.	Children per 1,000 Employees.	Children per 1,000 of all Children aged 13 and under 16.
1907 ...	36.5	91.6	49.6	45.9
1911 ...	25.2	76.4	37.4	49.9
1920-21 ...	32.7	119.0	50.1	62.8
1921-22 ...	34.8	113.7	54.1	68.4
1922-23 ...	34.7	115.0	54.4	68.2
1923-24 ...	33.9	106.7	51.1	66.8
1924-25 ...	31.4	108.4	49.6	65.9
1925-26 ...	31.2	112.0	52.9	72.5
1926-27 ...	33.2	111.4	52.4	73.7
1927-28 ...	29.1	106.1	50.0	66.6
1928-29 ...	29.1	112.4	49.8	68.0

The proportion of boys to men is lower now than in the year 1907, but the proportion of girls amongst the female employees is 23 per cent. higher.

The number of children employed in factories has shown a tendency to increase, being equal to 68 per 1,000 of all children in the community between the ages of 13 and 16 in 1928-29 as compared with 46 per 1,000 in 1907.

INDIVIDUAL INDUSTRIES.

PRINCIPAL PRODUCTS.

The foregoing information relating to the manufacturing industry as a whole or to groups of industries serves to show the general industrial development, but it does not furnish particulars relating to individual industries. It is desirable that detailed information should be available regarding all the important industries, but the output of many of them, *e.g.*, engineering works, cannot be classified readily. Therefore the following statement of principal products includes only those for which particulars of quantity and value are available.

Commodities.	1926-27.		1927-28.		1928-29.	
	Quantity.	Value at Works.	Quantity.	Value at Works.	Quantity.	Value at Works.
Wool, Seoured ...	... lb.	30,021,122	3,371,345	24,672,168	3,318,819	19,649,577
" Tops and Nolls ...	... lb.	3,910,674	694,425	1,975,115	348,530	2,274,959
Leather ...	... lb.	21,099,047	1,499,503	18,435,774	1,551,283	19,366,619
Soap ...	... cwt.	457,995	1,072,434	460,482	1,069,784	483,531
Candles ...	... lb.	3,623,663	131,638	3,200,942	119,502	2,696,276
Tallow, Raw ...	... cwt.	456,203	757,552	287,348	484,547	354,566
Bricks ...	... 1,000	430,665	1,600,237	439,670	1,642,475	437,158
Cement ...	... ton.	365,384	1,553,680	432,359	1,823,975	414,913
Timber, Sawm ...	... cub. ft.	14,052,938	2,209,120	12,455,178	1,877,255	11,627,475
Steel, Ingots ...	... ton	410,728	...	405,590	...	432,773
Pig Iron ...	... ton	468,899	...	428,404	...	461,110
Bacon and Ham ...	... lb.	23,275,890	1,293,387	24,523,873	1,213,130	22,340,106
Butter ...	... lb.	91,727,225	7,091,724	96,706,842	7,273,229	91,733,572
Cheese ...	... lb.	6,628,600	289,912	7,080,992	303,621	6,208,409
Margarine ...	... lb.	16,014,623	522,104	16,376,131	526,346	16,427,959
Biscuits ...	... lb.	44,780,830	1,410,577	43,161,976	1,441,716	43,289,522
Ice ...	... ton	212,340	427,116	214,328	458,899	258,823
Aerated Waters, etc.	... doz.	7,048,244	978,277	6,689,760	931,623	6,986,373
Jams and Preserves	... lb.	30,871,948	835,308	33,042,170	782,153	30,579,055
Pickles and Sauces	... pint.	8,984,043	456,249	10,073,346	477,741	10,419,549
Flour ...	... ton	431,532	5,671,070	400,363	4,895,023	449,011
Bran... ..	... ton	85,218	623,707	82,566	554,158	87,259
Pollard ...	... ton	97,607	775,805	84,440	668,967	95,641
Meat, Preserved in Tins	... lb.	6,673,466	217,238	3,919,866	167,815	4,251,040
Sugar, Raw ...	... cwt.	532,080	665,289	466,980	532,451	339,078
Beer and Stout ...	... gal.	27,372,445	2,964,969	28,130,066	3,083,469	29,420,920
Tobacco ...	... lb.	9,435,084	2,942,950	9,478,476	2,944,960	10,134,242
Cigarettes and Cigars	... lb.	5,200,744	1,861,584	5,288,908	1,850,969	5,263,558
Tweed and Cloth ...	... yds.	2,378,555	999,565	2,686,341	1,098,661	2,822,663
Socks and Stockings	... doz. prs.	737,437	1,118,957	767,214	1,010,534	1,142,192
Knitted Goods—Woolen ...	... No.	866,930	401,000	1,416,734	513,611	1,397,172
" Cotton ...	... No.	4,299,713	384,454	2,859,194	200,459	5,609,330
Boots, Shoes and Slippers...	... prs.	5,102,953	2,473,891	4,794,048	2,541,813	5,108,946
Hats and Caps ...	... No.	3,054,180	999,758	2,859,432	950,647	2,860,332
Gramophone Records ...	... No.	4,690,956	380,893	5,277,995	450,762	5,965,619
Gas ...	... 1,000 cub. ft.	10,279,605	2,113,511	10,700,870	2,208,011	10,683,530
Coke ...	... ton	1,086,604	1,640,966	1,013,389	1,508,030	1,003,626
Electricity ...	... 1,000 units	798,917	4,261,600	918,194	4,762,974	959,985

The list of commodities shown above represents less than one third of the total value of the factory production. It is exclusive of the products of the following important groups, *viz.*, metal and machinery works, which in 1928-29 contributed £48,123,000, or 26 per cent. of the total value; the printing and furniture trades, vehicles, etc., ship-building, and drug and chemical factories, of which the collective output was valued at £26,276,000, or 14 per cent. of the total. The largest items shown in the statement are food products, butter and flour, of which the output is liable to fluctuation on account of seasonal conditions affecting rural production.

TANNERIES.

Skins and hides are available in large quantities, but in recent years there has been very little expansion in the tanning industry, as there is only a slight annual increase in local requirements, and the export trade has shown a tendency to fall away in the last few years. Besides maintaining an extensive export trade in leather, it provides practically all the raw material needed for local requirements and for a small overseas trade in footwear and other leather goods. More than three-fifths of the leather produced locally is sole leather, but the production of the finer sorts is expanding. The exports of sole leather in 1929 were valued at 197,399, and of other leather £134,887. Fancy leathers, principally glace kid and patent and enamelled leather, are still imported in large quantities. Thus 295,883 square feet of this leather, valued at £28,726, were imported into New South Wales in 1928-29, and more than 75 per cent. came from the United States of America.

The following table gives particulars of the industry for the year 1901 and at intervals thereafter:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	108	76	80	71	69
Average Number of Employees ...	1,059	1,039	1,242	1,132	1,175
Average Horse-power used ...	711	1,044	2,688	2,760	2,962
Value of Land and Buildings † £	115,752	105,990	265,166	248,872	253,423
Value of Plant and Machinery £	47,274	82,241	172,132	171,323	164,981
Salaries and Wages paid ... £	80,757	104,695	262,724	260,194	267,458
Value of Fuel and Power used £	4,893	7,160	17,855	22,715	22,816
Value of Materials used ... £	578,164	786,817	1,684,791	1,546,010	1,587,055
Value of Output ...	£ 735,231	982,023	2,103,525	2,042,082	2,089,373
Value of Production ...	£ 152,174	188,046	400,879	473,357	479,502
Materials Treated—					
Hides—					
Calf and Yearling ... No.	*	214,681	100,829	513,255	536,231
Other ... No.	*	317,025	692,335	334,899	439,304
Sheep Pelts ... No.	*	4,642,865	3,813,618	3,075,150	2,481,917
Other Skins ... No.	*	125,576	284,632	327,654	526,470
Bark ... tons	*	11,706	11,570	9,010	9,078
Articles Produced—					
Leather ... lb.	*	13,945,005	17,707,065	18,435,774	19,396,619
Basils ... lb.	*	4,324,139	2,730,162	2,845,508	1,990,712
Other ... £	*	26,885	296,113	173,523	148,594

* Not available.

† Includes rented premises.

Investigations made during 1928 disclosed the fact that many firms had been showing the value of land, buildings, plant and machinery at the original cost. The figures shown for 1927-28 and 1928-29 are the values in the firms' books after allowing for depreciation. This applies to other industries also.

WOOL-SCOURING AND FELLMONGERING.

Only a very small proportion of the wool clip of New South Wales is scoured locally, as overseas manufacturers generally prefer to buy wool in the grease and to treat it in accordance with the purpose for which they require it. The exports in 1928-29 of greasy wool were 340,541,026 lb.,

scoured wool 18,741,799 lb., and wool tops 469,187 lb. Until 1926 there was a large export trade in wool tops, the average quantity exported for the previous six years being 4,250,000 lbs. per annum, but since that date there has been a considerable falling off in the quantity exported and at the present time the exports of wool tops are practically negligible.

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	73	59	42	32	31
Average Number of Employees ...	1,459	1,603	1,461	810	674
Average Horse-power used ...	997	2,009	3,623	1,843	2,076
Value of Land and Buildings† £	125,836	169,418	276,320	166,588	174,034
Value of Plant and Machinery £	66,391	160,200	373,442	156,397	156,767
Salaries and Wages paid ... £	77,429	126,215	280,731	190,665	150,594
Value of Fuel and Power used £	9,059	16,277	39,542	32,656	25,716
Value of Materials used ... £	25,244	2,151,713	2,991,868	3,043,775	1,972,092
Value of Output ... £	150,614	2,393,883	3,677,014	3,380,319	2,175,240
Value of Production ... £	116,311	225,893	645,604	303,888	177,432
Materials Treated—					
Greasy Wool ... lb.	*	34,023,054	24,960,202	32,422,990	28,547,411
Scoured Wool ... lb.	*	*	5,738,701	...	...
Skins ... No.	*	5,180,335	4,088,690	2,695,873	2,040,259
Articles Produced—					
Scoured Wool ... lb.	*	33,283,378	26,994,551	24,672,165	19,649,577
Pelts... ... No.	*	4,655,524	3,235,429	2,356,907	1,647,472

* Not available.

† Includes rented premises.

The fellmongering establishments treated 2,040,259 skins and produced 7,359,315 lb. of scoured wool, the balance being the output of the scouring works.

The figures for 1927-28 and 1928-29 are not comparable with those for earlier years, which included those for woolcombing establishments now shown under woolen and tweed mills.

SOAP AND CANDLE FACTORIES.

The soap and candle factories supply practically the whole of the local requirements and there is also a small export trade with the islands of the Pacific. The following table shows the chief particulars of the industry since 1901:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	44	37	26	27	27
Average Number of Employees ...	533	658	946	1,047	1,030
Average Horse-power used ...	503	785	964	1,303	1,196
Value of Land and Buildings† £	84,923	165,218	223,423	342,071	352,700
Value of Plant and Machinery £	89,147	150,453	287,714	286,157	304,446
Salaries and Wages paid ... £	37,681	49,555	141,135	214,010	218,551
Value of Fuel and Power used £	5,932	12,205	40,160	35,974	35,441
Value of Materials used ... £	208,676	359,096	859,555	842,765	913,071
Value of Output ... £	322,036	597,544	1,177,511	1,497,554	1,613,066
Value of Production ... £	107,428	226,243	277,796	618,815	664,554
Materials Treated—					
Tallow cwt.	*	117,428	139,153	195,690	212,568
Alkali lb.	*	6,370,007†	4,516,054	9,567,058	10,476,170
Wax lb.	*	*	2,481,854	2,216,534	2,102,759
Resin cwt.	*	£180,697	22,327	34,119	33,638
Copra Oil cwt.	*	*	15,560	31,482	37,311
Sand cwt.	*	*	3,595	23,014	21,180
Principal Products—					
Soap cwt.	233,600	277,449	280,620	460,482	483,531
Soap Extract, etc. ... lb.	*	965,807	4,051,251	5,187,589	6,022,338
Candles (including wax) lb.	3,895,468	5,388,848	4,191,534	3,200,942	2,896,276
Glycerine lb.	631,680	*	1,882,423	2,022,612	2,442,745
Soda Crystals lb.	*	*	681,024	3,149,898	3,430,067

* Not available.

† Includes rented premises.

‡ All factories.

BRICK AND TILE WORKS.

Owing to the abundance of clay, brickworks have been established in many parts of the State. In the metropolitan brickworks 2,048 persons are employed, and the output of the kilns is much greater and more varied than in the country, where the employees number 1,036. In a number of cases the industry is associated with tile-making, so the figures for the two industries have been combined. The following figures present information concerning the industry in 1901 and later years:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	182	222	159	171	178
Average Number of Employees	1,823	3,017	3,716	4,006	3,913
Average Horse-power used ...	1,228	4,865	9,181	12,516	13,013
Value of Land & Buildings† £	200,170	391,875	865,182	1,014,940	1,113,623
Value of Plant & Machinery £	103,589	449,100	1,114,500	1,511,100	1,440,659
Salaries and Wages paid £	149,342	322,781	777,536	941,744	944,390
Value of Fuel and Power used £	46,355	101,267	276,402	389,219	376,130
Value of Materials used £	32,199	70,881	189,150	375,471	370,699
Value of Output £	364,251	726,620	1,640,743	2,208,958	2,216,401
Value of Production ... £	285,697	554,472	1,175,191	1,441,268	1,469,572
Articles Produced—					
Bricks No.	157,999,000	327,864,000	360,092,005	439,344,889	437,157,614
Tiles £	*	24,857	286,862	372,242	373,180
Fire Bricks, etc. ... £	*	*	72,225	147,937	153,375
Pipes and Pottery ... £	*	104,004	6,754	48,393	36,641

* Not available.

† Includes rented premises.

In addition to the bricks made in the brick and tile works, a small number are manufactured in other establishments, but are not included in the figures shown above.

The local factories supply practically all the bricks and tiles required for use in New South Wales. In pre-war years large quantities of tiles were imported, but local production has developed to such an extent that importation has practically ceased.

State Brickworks, Homebush.

In the latter part of 1911 the Government established State Brickworks at Homebush, near Sydney, and the undertaking has proved very profitable. The requirements of the different Government Departments are supplied and bricks are sold to the public at prices below those ruling in private brick-yards.

The following table gives particulars of the operations of the State Brickworks at Homebush Bay during each of the last five years. The sale prices

as stated in the table were for bricks loaded into trucks at the yard, Homebush Bay:—

Particulars.	1923-24.	1924-25.	1925-26	1926-27.	1927-28.	1928-29.
Bricks manufactured	44,966,718	47,385,915	40,116,786	58,063,139	60,663,064	62,276,611
Used for Public Works	9,832,900	14,684,270	22,740,727	23,169,934	11,389,203	10,231,720
Sold to Private Purchasers ..	34,826,912	30,598,928	24,666,518	35,153,809	47,795,517	50,800,410
Used at Works	58,769	1,980,388	1,231,798	104,237	1,127,923	626,484
Stocks at 30th June	478,479	600,799	1,078,542	713,701	1,034,122	1,652,119
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cost of Manufacture per 1,000 ..	2 6 8	2 6 3	2 7 10	2 8 9	2 11 3	2 14 2
Sale price per 1,000—						
Seconds	2 10 6	2 10 6	2 12 6	2 13 0	2 13 6	2 13 6
Commons	2 13 0	2 13 0	2 15 0	2 15 6	2 13 6	2 13 6
Face.. ..	*4 6 0	4 10 0	4 15 0	4 16 0	5 2 0	5 2 0

* From 1st November, 1923, £4 10s.

A system of profit-sharing by the employees is in operation, and, apart from the amounts distributed under this scheme, undistributed surpluses amounted at 30th June, 1929, to £142,512

SAWMILLS.

Sawmilling is an important industry in many parts of the State, the majority of the mills being situated in the forest areas. Besides general sawmilling, moulding and planing are undertaken at some mills, also the cutting of wood-paving blocks. In the more populous centres sawmills are conducted in connection with yards where imported timbers are treated and joinery work is done.

Details concerning the sawmilling industry at intervals since 1901 are as follow:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ..	345	452	496	468	477
Average Number of Employees	4,088	5,205	5,645	4,784	4,639
Average Horse-power used...	5,189	10,280	14,597	16,984	17,695
Value of Land and Buildings*	£ 317,193	465,548	811,830	954,911	986,290
Value of Plant and Machinery	£ 273,883	526,909	908,192	†870,931	813,170
Salaries and Wages Paid ...	£ 304,826	456,520	926,276	936,368	888,891
Value of Fuel and Power used	£ 17,601	6,503	24,405	35,569	35,123
Value of Materials used ..	£ 824,065	1,309,549	2,732,656	3,376,286	3,295,133
Value of Output	£ 1,336,153	2,057,807	4,103,924	4,992,172	4,891,185
Value of Production ..	£ 494,487	741,755	1,346,863	1,580,317	1,560,929
Logs Treated—					
Hardwood cub. ft. ..	} 17,769,000	12,309,000	14,844,000	12,679,063	12,299,271
Softwood		5,442,000	5,652,000	6,418,922	5,893,421
Sawn Timber Produced—					
Hardwood sup. ft. ..	} 180,028,000	100,079,000	117,781,837	98,981,430	94,696,465
Softwood		51,392,000	45,628,945	50,480,703	44,833,240

* Includes rented premises.

† See remarks under "Tanneries" page 372.

The native timbers treated during 1928-29 consisted of 12,270,951 cubic feet of hardwoods and 5,523,514 cubic feet of softwoods; the quantities of sawn timber produced therefrom being 94,414,153 super. feet, and 41,636,901 super. feet, respectively. The output during 1928-29 was adversely affected by industrial disputes.

METAL AND MACHINERY WORKS, ETC.

This group is the most important of the manufacturing industries in the State, because it provides employment for nearly one-third of the adult males engaged in factories and workshops.

The output of these works constitutes a considerable proportion of the total value of local manufactures, though they supply only a portion of the local requirements of manufactured metals and machinery. Details of the products are not available, but in view of their importance the following particulars relating to the operations in 1928-29 are shown:—

Items.	Engineering Works.	Ironworks and Foundries.	Railway and Tramway Workshops.	Metal Extraction and Ore Reduction.	Other.	Total.
Number of Establishments ...	294	164	39	18	482	997
Average Number of Employees ...	7,486	7,838	13,248	2,503	16,886	47,961
Average Horse-power used ...	9,073	35,281	14,007	24,839	19,890	103,090
Value of Land and Buildings* £	1,377,995	1,493,995	2,633,468	548,579	3,140,825	9,194,862
Value of Plant and Machinery £	1,247,670	2,713,787	2,707,776	3,015,474	2,587,867	12,272,574
Salaries and Wages paid ... £	1,739,991	2,013,771	3,468,203	822,725	3,672,466	11,717,156
Value of Fuel and Power used £	72,103	350,893	85,298	1,310,853	258,973	2,078,120
Value of Materials used ... £	2,293,645	8,540,589	2,485,499	6,129,581	7,796,310	27,245,624
Value of Output ... £	4,897,237	12,378,380	7,029,696	9,813,474	14,004,214	48,123,001
Value of Production ... £	2,531,489	3,486,898	4,458,899	2,373,040	5,948,931	18,799,257

* Includes rented premises.

† See remarks under Tanneries, page 372.

The number of persons employed in metal and machinery workshops has increased by 11,101 since 1920-21, the value of premises, plant, etc., by £7,349,290, and the value of production by £8,173,000.

The expansion of these industries has been stimulated in recent years by reason of large projects undertaken in the State, e.g., the Sydney Harbour Bridge, the City Railway, and the electrification of the suburban railways and the construction of water conservation works, and the year under review shows an increase of five in the number of establishments and of 1,147 in the number of employees.

Various classes of engineering are undertaken at the dockyards, of which particulars are published in the chapter of this volume entitled "Shipping."

Iron and Steel Works.

In New South Wales there are large supplies of iron ore and of coal, both of excellent quality, and in close proximity to each other and to the sea-board.

Iron and steel works located at Lithgow for many years are being transferred to Port Kembla as a result of an arrangement described on the next page. Works on an extensive scale were opened at Newcastle in 1915. The products include iron and steel of various grades, pipes and boilers, steel sleepers, rails, and such by-products as sulphate of ammonia, tar, benzol and solvent naphtha. At Lithgow local iron ores were used, and the ore treated at Newcastle is imported from South Australia.

Year ended 30th June.	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.	Year ended 30th June.	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1921	366,549	259,603	145,507	1926	430,597	385,231	339,463
1922	301,307	250,982	164,119	1927	468,899	410,728	360,212
1923*	138,114	87,814	70,481	1928	428,404	405,580	350,941
1924	367,099	336,150	279,317	1929	461,110	432,773	353,921
1925	460,154	388,156	320,693				

Large iron and steel works are under construction at Port Kembla in terms of an agreement between the Government of New South Wales and the Hoskins Iron and Steel Co., Ltd., owners of the Lithgow Iron and Steel Works. The Government agreed to construct a railway from Moss Vale, on the main southern line, to Port Kembla within a period of three years. The company agreed to expend within the same period a sum of £650,000 on the construction and equipment of iron and steel works at Port Kembla, and to spend an additional sum of £100,000 during the first year the line is open for traffic. In August, 1928 the first unit of the new works was put into operation. This is a blast furnace of the latest design, with a capacity of 800 tons of pig iron daily, and is the largest blast furnace in the British Empire. In 1928 arrangements were made for merging the company's business into a new organisation, known as Australian Iron and Steel Limited, with which are associated two English engineering firms and an Australian firm of shipowners and colliery proprietors. The purpose of the enterprise is the development of the iron and steel industry at Port Kembla.

The following statement shows the operations of the smelting companies in connection with both local and imported ores during 1928-29:—

[illegible]

BUTTER FACTORIES.

Butter-making is one of the chief industries connected with the preparation of articles of food. It gives employment to 1,022 persons, and the output for 1928-29 was valued at over £7,557,000. Butter is an important item of the export trade, and 95 per cent. of local production is made in factories.

Details concerning butter factories and their operations in various years since 1901 are as follows:—

Items.	1901.	1911.	1920-21.	1927-28‡.	1928-29‡.
Number of Establishments	180	150	126	115	108
Average Number of Employees ...	909	968	1,022	1,080	1,022
Average Horse-power used	1,765	2,161	3,843	7,270	7,597
Value of Land and Buildings † ...	£ 247,394	186,893	308,189	621,590	627,717
Value of Plant and Machinery ...	£ 172,767	230,485	395,668	675,389	663,756
Salaries and Wages paid £	74,176	110,617	225,392	299,315	284,729
Value of Fuel and Power used ...	£ 13,924	23,599	61,655	72,865	69,169
Value of Materials used £	1,260,920	3,205,863	8,017,379	6,798,890	6,925,551
Value of Output ...	£ 1,535,398	3,475,890	8,974,967	7,533,622	7,557,363
Value of Production £	260,554	246,428	895,933	661,867	562,643
Cream used for butter lb.	*	177,401,000†	174,837,000†	203,529,885	192,150,314
Butter Produced ... lb.	34,282,214	78,421,512†	79,864,745†	96,706,842	91,733,572

* Not available.

† Includes rented premises.

‡ Excludes small quantities in farm factories worked by farm employees.

§ Includes 4 creameries in 1927-28, and 3 creameries in 1928-29.

The cream used during 1928-29 included interstate imports, 1,849,388 lb., from which 906,990 lb. of butter were made.

The annual production of butter depends largely on seasonal conditions in the dairy farming districts, but the general trend has been towards an increased output, and the increase in quantity has been accompanied by a marked improvement in quality. About 96 per cent. of the butter made in factories is graded as choicest by official graders.

The 108 butter factories mentioned in the foregoing table include three creameries, and four factories, in which cheese is made, as well as butter. There were also 59 other establishments engaged in the treatment of dairy produce, viz., 34 cheese factories, 23 bacon and ham factories, and 2 factories manufacturing condensed milk. Particulars of the operations of these factories for the year 1928-29 were:—

Number of employees ...	599
Value of land and buildings ...	£249,934
Value of plant and machinery ...	£199,819
Salaries and wages paid ...	£153,519
Value of output ...	£1,829,145
Value of production ...	£354,142

In addition there was one factory in which cheese was treated after manufacture.

Bacon, hams, butter, and cheese are made on farms as well as in factories, therefore the chapter in this Year Book relating to the Dairying Industry should be consulted for information regarding the total production of these commodities.

MEAT-PRESERVING AND REFRIGERATING.

In 1919-20 there were nine establishments, with 1,109 persons employed in connection with meat-preserving, but owing to depression in the meat trade only four establishments, employing 210 persons, were in operation in 1928-29.

The following table shows the production of establishments treating meat by canning and chilling during the last five years:—

Products.		1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Preserving Works—						
Tinned Meat	... lb.	5,143,645	4,988,265	6,673,406	3,919,866	4,251,040
Other Products	... £	64,160	74,586	138,653	42,619	70,524
Refrigerating Works—						
Carcases Frozen for Export*						
Cattle	... No.	31,825	27,792	12,499	6,451	36,411
Sheep	... No.	269,888	321,834	480,879	186,018	319,995
Lambs	... No.	228,056	456,136	685,154	365,329	358,582
Pigs	... No.	5,600	2,662	7,449	22,628	3,474
Carcases Chilled—						
Cattle	... No.	21,058	23,090	17,748	23,751	14,999
Sheep	... No.	30,503	23,502	41,018	76,702	13,732
Lambs	... No.	3,027	3,385	9,441	8,909	10,495
Pigs	... No.	4,076	8,393	6,512	13,211	14,533

*Exclusive of meat for export as ship's stores.

The output of tinned meat was formerly much larger than at the present time. It amounted to 31,576,000 lb. in 1913, and during the three years ended 30th June, 1920, the average annual output exceeded 20,000,000 lb. Since that year prices of stock have been high and the demand for preserved meat has slackened.

The operations of the refrigerating works are affected by a number of factors, most important being the seasons and the condition of world markets. In adverse seasons, or after a succession of good seasons, the pastoralists sell all the animals which are in marketable condition, but on the breaking of a drought stock are retained for fattening or breeding. An unusually severe drought broke in June, 1920, and for a time stock were withheld. A few months later the oversea meat markets became glutted, and prices fell below the cost of production, consequently operations were restricted.

In 1922 a favourable oversea market for mutton and lamb and a local scarcity of winter fodder led to a revival in that section of the trade. Subsequently supplies of live stock for freezing dwindled, owing to good seasons and the high prices obtainable for wool. During the last two years there has been a decrease in the number of lambs frozen for export, and although the number of sheep treated in 1928-29 shows an increase over the previous year, there was a falling off as compared with 1925-26 and 1926-27.

BISCUIT FACTORIES.

There are in the State eleven establishments engaged in the manufacture of biscuits, of which ten are within the Metropolitan area. The output of biscuits reached 43,289,522 lb., with a value of £1,462,757. An export trade in biscuits is maintained with the islands of the Pacific; the total

exports in 1928-29 amounted to 2,662,229 lb. A small quantity—275,222 lb.—was imported from abroad. Details for 1901 and other years, including 1928-29, are given below:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	8	6	10	11	11
Average Number of Employees	845	1,360	1,800	1,837	1,837
Average Horse-power used ...	131	556	1,115	606	515
Value of Land and Buildings† £	42,253	94,050	164,031	226,126	226,962
Value of Plant and Machinery £	29,066	86,192	135,285	153,410	132,521
Salaries and Wages paid... £	35,165	70,055	221,791	265,151	273,660
Value of Fuel and Power used £	1,862	7,104	23,614	23,329	37,172
Value of Materials used... £	126,891	332,341	936,747	779,663	786,824
Value of Output ... £	213,645	529,108	1,358,266	1,487,753	1,510,415
Value of Production ... £	84,892	189,663	397,905	684,761	686,419
Materials Treated—					
Flour... .. tons	*	8,755	12,210	13,886	13,808
Sugar tons	*	*	3,024	3,670	3,455
Articles Produced—					
Biscuits lb.	*	22,029,000	38,308,360	43,161,976	43,289,522
Cakes—Value only ... £	*	*	21,916	36,300	240,480

* Not available.

† Includes rented premises.

FLOUR MILLS.

The amount of mill-power for grinding and dressing grain is ample for manufacturing the flour consumed in the State, and there is a considerable export trade.

Details concerning flour-milling at intervals since 1901 are as follow:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ..	89	73	60	57	56
Average Number of Employees	889	967	1,023	1,116	1,146
Average Horse-power used ...	3,149	4,670	6,384	7,578	7,893
Value of Land and Buildings† £	334,037	357,356	561,688	797,589	804,901
Value of Plant and Machinery £	254,335	340,316	572,456	910,691	884,194
Salaries and Wages paid... £	77,321	123,491	219,964	290,265	312,880
Value of Fuel and Power used £	18,977	24,648	37,746	66,105	70,282
Value of Materials used... £	1,215,420	2,211,263	4,951,650	5,336,674	5,498,861
Value of Output ... £	1,514,512	2,538,331	5,590,405	6,126,088	6,276,317
Value of Production ... £	280,115	302,420	601,009	723,309	707,174
Wheat Treated bus.	9,369,534	12,616,111	11,595,807	19,133,823	21,478,082
Articles Produced—					
Flour tons	191,504	253,556	244,918	400,363	449,011
Bran, Pollard, Sharps, etc. "	*	112,766	100,545	167,945	185,993
Wheat Meal, etc. ... cwt.	*	21,840	21,863	44,727	35,722

* Not available.

† Includes rented premises.

The average annual production of flour during the last three years was about 426,969 tons, and the annual export—oversea and interstate—was approximately 190,000 tons, or 44 per cent. of the output.

SUGAR MILLS.

Sugar cane is cultivated in the lower valleys of the northern coastal rivers of New South Wales, and the cane is crushed at three large mills situated respectively at Harwood Island, on the Clarence River, at Broadwater, on the Richmond, and at Condong, on the Tweed.

FACTORIES.

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The raw sugar manufactured in 1928-29 was valued at £364,175, and the molasses at £3,808.

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	4	4	3	3	3
Average Number of Employees	529	469	437	413	375
Average Horse-power used ...	2,578	3,000	1,279	2,120	2,114
Value of Land and Buildings £	12,177	52,480	106,070	133,870	133,870
Value of Plant and Machinery £	509,242	467,976	425,283	535,491	538,046
Salaries and Wages paid £	31,764	38,004	63,003	91,373	77,995
Value of Fuel and Power used £	4,854	8,102	8,636	12,252	7,749
Value of Materials used £	95,394	107,600	303,651	362,096	259,355
Value of Output... £	197,137	206,277	476,405	537,112	367,983
Value of Production ... £	96,889	90,575	164,118	162,764	160,879
Cane crushed ... tons.	131,083	147,799	131,313	208,612	147,412
Articles produced—					
Raw Sugar ... cwt.	296,200	345,978	302,480	466,980	339,078
Molasses ... gals.	1,072,400	796,440	649,800	1,196,700	914,000

The operations of the mills increased considerably during the two years ended June, 1926, following an extension of the area planted with sugar cane. Seasonal conditions were not so favourable during 1927-28 and 1928-29, and there was a decline in the quantity of cane crushed. The industry has been assisted by the provision of bounties and other measures. At the present time there is an embargo on the importation of foreign sugar, except with the permission of the Minister for Trade and Customs.

Sugar Refinery.

There is but one sugar refinery in the State. It is situated at Pyrmont, Sydney, and it treats raw sugar from the North Coast and Queensland mills. During the year 1928-29 the quantity of raw sugar treated was 3,030,660 cwt., and it gave an output of 2,960,380 cwt. of the refined article, valued at £5,303,655.

The three mills and the refinery provided employment for 1,006 persons during the year 1928-29.

BREWERIES.

In 1928-29 there were in the State eight establishments classed as breweries of which the three largest were within the Metropolitan boundaries. The number has decreased since 1911, when there were 37, but the output has increased considerably.

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	51	37	17	8	8
Average Number of Employees	1,016	912	1,122	1,255	1,276
Average Horse-power used ...	1,105	1,035	3,289	3,733	4,124
Value of Land and Buildings* £	584,754	305,287	714,155	836,311	843,365
Value of Plant and Machinery £	190,710	281,316	924,181	1,074,881	1,038,768
Salaries and Wages paid £	119,099	120,340	286,685	375,434	387,017
Value of Fuel and Power used £	13,849	17,794	66,848	77,203	78,000
Value of Materials used... £	282,128	494,219	1,316,561	1,237,133	1,381,494
Value of Output... £	1,022,247	1,140,151	2,515,224	3,110,838	3,215,957
Value of Production ... £	726,270	628,138	1,131,815	1,796,502	1,756,463
Materials Treated—					
Malt ... bshls.	532,930	667,457	832,850	952,344	992,385
Hops ... lb.	665,345	790,866	831,656	910,240	935,989
Sugar ... tons	3,927	4,421	5,477	5,327	5,505
Articles produced—					
Ale, Beer, Stout ... gals.	13,973,751	19,804,540	25,470,404	28,130,066	29,420,920

* Includes rented premises.

Nearly all the beer consumed by New South Wales is brewed in the local factories.

TOBACCO FACTORIES.

Eight tobacco factories were in operation during the year 1928-29, all within the Metropolitan area. The industry is highly organised, all but a small proportion of the output being produced in five large establishments. Conditions of employment in the tobacco factories are maintained at a high standard.

Most of the tobacco treated is imported from the United States of America. Only a small quantity is produced in New South Wales, where tobacco was grown on 762 acres in 1928-29, and the crop was 5,194 cwt, valued at £44,930.

The following table shows details of the operations of tobacco factories in New South Wales at intervals since 1901:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	20	26	16	8	8
Average Number of Employees	1,061	1,462	2,394	2,476	2,494
Average Horse-power used ...	151	630	657	1,035	1,199
Value of Land and Buildings* £	155,452	182,569	291,604	498,424	527,350
Value of Plant and Machinery £	69,124	92,138	226,043	332,444	363,150
Salaries and Wages paid £	55,149	131,323	356,781	457,296	468,904
Value of Fuel and Power used	1,288	1,067	11,697	10,597	12,598
Value of Materials used £	389,148	776,302	3,403,517	3,346,453	3,345,869
Value of Output ... £	561,991	1,250,748	4,240,746	4,793,033	4,863,300
Value of Production ... £	171,555	473,379	825,532	1,441,983	1,504,833
Materials Treated—					
Australian Leaf ... lb.	883,615	745,405	876,007	535,201	504,633
Imported Leaf ... „	2,114,456	4,617,756	9,546,861	12,857,499	13,862,076
Articles produced—					
Tobacco lb.	2,524,231	3,996,471	6,622,540	9,478,476	10,134,242
Cigars „	67,128	87,818	146,433	96,007	86,057
Cigarettes „	457,276	1,899,462	5,072,903	5,192,901	5,117,501

* Includes rented premises.

Large quantities of tobacco and cigarettes are exported, mainly to other Australian States. The annual consumption in New South Wales of Australian-made tobacco during the three years ended June, 1929, was as follows:—Tobacco, 5,347,640 lb., cigars, 158,924 lb., cigarettes, 1,972,546 lb.

WOOLLEN AND TWEED MILLS.

Although New South Wales is one of the greatest wool-producing countries in the world, until recent years only a very small proportion of the woollen goods required in the State was manufactured locally. At present, however, practically all the local requirements in woollen and tweed goods and the yarn used in knitting mills are supplied by New South Wales or Victorian factories. During the last three years

signs of progress were apparent and the number of factory employees engaged in the manufacture of woollen materials was increased from 1,617 in 1923-24 to 2,993 in 1928-29.

The output of local tweed increased by 150 per cent. between 1911 and 1921, and the production of other articles increased. Then there was a serious decline, due to adverse trade conditions, but there has been a marked improvement in recent years.

Details of employment, output, and other items, at intervals since 1901, are shown in the following table:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	4	5	9	16	14
Average Number of Employees	234	738	1,650	2,939	2,993
Average Horse-power used ...	255	937	2,795	6,246	6,704
Value of Land and Buildings† £	29,780	96,821	224,474	519,618	540,680
Value of Plant and Machinery £	26,650	122,927	384,662	1,116,131	1,023,692
Salaries and Wages paid £	12,459	66,536	235,668	443,221	469,019
Value of Fuel and Power used £	1,727	4,632	23,517	58,516	57,941
Value of Materials used £	30,272	142,915	745,848	1,090,384	1,311,049
Value of Output ... £	57,039	271,465	1,437,647	1,881,237	2,144,234
Value of Production ... £	25,040	122,918	668,282	732,337	775,244
Materials Treated—					
Scoured Wool ... lb.	685,240	1,225,470	3,603,448	5,406,749	5,748,343
Cotton	†	†	332,501	424,247	272,006
Tops	†	†	†	555,620	1,567,122
Yarn	†	†	†	142,462	253,996
Articles produced—					
Tweed and Cloth ... yds.	525,020	1,054,845	2,494,417	2,686,341	2,822,663
Flannel and Blankets £	*	95,313	198,504	226,304	227,738
Rugs and Shawls ... £	*		23,000	16,895	12,726
Tops and Noils ... £	†	†	69,672	348,530	301,886
Yarn £	†	†	278,072	140,941	301,530

* 3,428 yards flannel, 5,000 pairs blankets, 900 rugs. † Not available.

† Includes rented premises.

A number of new woollen mills have been established, viz., at Sydney, Albury, and more recently at Orange. There has been considerable expenditure on plant, etc., during the last six years, but the mills have not been in full operation. The customs duties on imported goods were increased in September, 1925, and in November, 1927, with a view to assisting the local industries.

Hosiery and Knitting Factories.

Marked progress has been made in the production of hosiery and knitted goods. In 1920-21 there were 33 establishments with 1,477 employees, the value of materials and fuel used amounted to £573,128, and the output was valued at £872,476. In 1928-9 there were 67 establishments employing 4,542 persons, and the value of materials and fuel was £1,440,115, and of the output £2,732,950. The value of the land, buildings and plant increased during the period from £282,539 to £1,207,423.

The materials used in 1928-29 included yarn 1,273,522 lb., cotton 1,942,479 lb., silk 102,653 lb., and artificial silk 2,282,590 lb. The products included 1,142,192 doz. pairs of socks and stockings valued at £1,343,990, and other woollen, cotton and art silk goods valued at £538,395, £297,073 and £408,924 respectively.

BOOT AND SHOE FACTORIES.

Many varieties of footwear are made in the local factories. The bulk of the output is used in the State, and small quantities are exported, principally to New Guinea, Papua, and Fiji.

Particulars of the operation of these factories since 1901 are shown in the following table:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	100	106	101	104	103
Average Number of Employees ...	3,979	4,417	4,459	5,019	5,201
Average Horse-power used ...	300	855	1,379	1,681	1,798
Value of Land and Buildings† £	166,413	222,983	371,985	521,545	538,339
Value of Plant and Machinery £	85,571	156,643	184,549	239,752	255,323
Salaries and Wages paid £	216,869	367,605	628,541	868,645	888,314
Value of Fuel and Power used £	2,978	5,298	10,365	11,529	13,226
Value of Materials used.. £	398,309	709,818	1,496,068	1,305,919	1,424,791
Value of Output... £	692,253	1,221,748	2,540,222	2,565,004	2,665,943
Value of Production ... £	290,966	506,632	1,033,789	1,247,553	1,227,926
Leather Used—					
Sole lb.	*	5,189,000	4,822,678	4,461,798	4,873,665
Upper sq. ft.	*	8,010,000	7,282,176	7,609,198	7,773,595
Articles produced—					
Boots and Shoes ... pairs	2,821,724	3,730,760	3,232,413	3,807,431	3,816,515
Slippers, etc. "	512,584	439,428	609,398	976,503	1,292,431
Uppers, N.E.I. "	...	71,133	41,925	32,724	62,244

* Not available.

† Includes rented premises.

The figures are exclusive of particulars of boot repairing establishments, which numbered 595 in 1928-29; 1,155 persons were employed, and their wages amounted to £112,879. Materials to the value of £159,256 were used, including 925,574 lb. of sole leather and 14,542 square feet of upper leather; the output was valued at £511,813.

The number of factories for the manufacture of boots and shoes was 103, of which 95 were situated within the Metropolitan area and 8 in the remainder of the State.

HAT AND CAP FACTORIES.

There has been considerable expansion in the industry organised for the manufacture of hats and caps. The Australian products have gained an important place in local markets and some are exported to New Zealand. In 1928-29 the employees numbered 1896, of whom 67 per cent. were females.

There were 31 establishments listed under this classification in 1928-29, and 30 were situated in the Metropolitan area. Particulars of the operations in various years since 1901 are as follow:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	10	32	28	30	31
Average Number of Employees	330	1,566	1,456	1,908	1,896
Average Horse-power used ...	21	433	764	776	716
Value of Land and Buildings* £	14,076	108,936	174,315	394,182	412,094
Value of Plant and Machinery £	7,034	60,807	88,817	148,449	147,103
Salaries and Wages paid £	15,055	56,498	185,394	307,951	314,616
Value of Fuel and Power used £	314	4,376	7,574	12,040	11,416
Value of Materials used... £	28,662	127,494	393,372	487,699	509,393
Value of Output... £	54,698	293,591	747,545	1,059,034	1,058,126
Value of Production ... £	25,722	161,721	346,599	559,295	537,317
Hats and Caps made ... No.	563,976	2,692,778	2,284,572	2,559,432	2,860,322

* Includes rented premises.

ELECTRIC LIGHT AND POWER WORKS.

The industries connected with the production and supply of electric light and power are making steady progress. The establishments include a number of Governmental undertakings.

The Railway Commissioners control large works in Sydney and Newcastle to supply electricity for transport and for the railway and tramway workshops. A Government undertaking is maintained at Port Kembla, whence power is supplied for harbour works, etc., and current is transmitted to constructional works in the vicinity and to a number of townships along the South Coast and in the Southern Highlands. Another scheme is operated by means of power available from the waters discharged through the Burrinjuck Dam for irrigation purposes. The current is supplied to six municipalities, viz., Murrumburrah and Harden, Cootamundra, Junee, Gundagai, Wagga Wagga, and Young, and the work of constructing transmission lines to Yass and Canberra has been commenced.

There are many municipal electricity works, the largest being the City of Sydney undertaking. Two hydro-electric schemes, viz., the Dorrigo and Nymboida, have been established by local governing bodies in the north-eastern areas.

The development in electric light and power works since 1901 is shown by the details given in the following table:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ...	51	104	117	134	126
Average Number of Employees	245	929	1,353	2,150	2,196
Average Horse-power used ...	3,494	54,734	111,591	329,865	334,294
Value of Land and Buildings† £	49,132	448,972	1,381,092	2,802,162	2,938,924
Value of Plant and Machinery† £	192,842	1,257,173	2,531,358	7,889,655	8,354,176
Salaries and Wages paid £	28,862	134,884	327,157	639,725	676,195
Value of Fuel and Power used £	17,166	183,248	590,373	1,477,449	1,431,186
Value of Materials used £	21,123	69,484	54,995	220,757	238,422
Value of Output ... £	87,241	896,607	1,697,763	4,859,084	4,956,461
Value of Production ... £	48,952	643,875	1,052,395	3,160,878	3,286,853
Coal used ... tons	*	259,239	510,088	916,344	882,355
Electricity generated—					
Light ... units	*	20,727,000	53,691,324	918,194,210	959,984,800
Power ... units	*	114,610,000	288,844,906		

* Not available.

† Includes rented Premises.

A notable feature of the operations in recent years is the increasing efficiency of the plant, as indicated by an increase of 16 per cent. as compared with the year 1911 in the number of units generated per horse-power of the engines used.

GAS WORKS.

Despite the substantial progress that has been made in the installation of electric plants for purposes of illumination, power, and cooking, the use of gas is extending also, as will be seen in the following table:—

Items.	1901.	1911.	1920-21.	1927-28.	1928-29.
Number of Establishments ..	38	47	46	48	48
Average Number of Employees	650	1,053	1,642	1,458	1,671
Average Horse-power used ...	711	1,394	3,125	4,551	4,018
Value of Land and Buildings† £	459,060	564,387	1,066,074	843,315	874,702
Value of Plant and Machinery £	480,533	888,711	1,892,835	2,808,466	2,907,445
Salaries and Wages paid... £	80,654	151,426	437,318	362,209	373,412
Value of Fuel and Power used £	18,000	57,372	11,495	243,992	247,831
Value of Materials used £	123,410	277,861	829,906	1,074,849	1,130,072
Value of Output... .. £	583,815	910,972	2,264,644	2,853,953	2,867,142
Value of Production ... £	442,375	575,739	1,321,743	1,535,112	1,489,739
Materials treated—					
Coal ton ^s	*	323,910	564,122	637,646	661,678
Shale... .. tons	*	55,621	27,298	30	.....
Oil gals.	*	*	3,700,462	1,917,732	1,851,132
Articles produced—					
Gas ... 1,000 cub. feet	2,138,631	4,275,859	8,131,712	10,700,870	10,683,530
Coke tons	*	176,728	346,380	429,654	435,816
Tar gals.	*	3,650,000	9,861,830	12,396,984	13,244,818
Ammoniacal Liquor gals.	*	3,365,000	4,216,929	2,619,980	4,885,155
Sulphate of Ammonia tons	*	*	1,061	6,546	6,546

* Not available.

† Includes rented premises.

As in the case of electric light and power works, the greater efficiency of gas-making plant and improved methods of treatment have resulted in an increase in production. In 1911 the average production of gas per ton of coal used was 13,200 cubic feet, but it was 15,100 cubic feet in 1921-22, and 16,100 cubic feet in 1928-29.

In addition to the coke and sulphate of ammonia made in gas works, considerable quantities are made in other establishments in which coal is treated. The total quantity of coke produced by all plants in 1928-29 was 1,003,626 tons, and of sulphate of ammonia 11,071 tons.

NEW INDUSTRIES.

Far-reaching expansion in the industries producing metal goods, machinery, etc., followed the development of iron and steel works. The products of factories in this group include various grades of iron and steel, rails, pipes, structural shapes, billets, tyres and axles, galvanised iron and black iron sheets; various classes of steel wire, steel fencing posts and steel castings, wire-netting, wire nails, automatic couplings for railways, and many kinds of machinery, brass and copper wire and rods and bars, cable for telephones, and aluminium ware. All the steel carriages for the electric railways were built in the local workshops.

Factories have been established for the manufacture of new kinds of products for the building and allied industries, *e.g.*, asbestos and fibro-cement, roofing, reinforced concrete ware, and conduits for electric wires. The production of cement expanded with the increased demand for use in concrete buildings and civil engineering projects, steel for reinforcement being manufactured locally. There are factories also for the production of white lead, paints and varnishes, linseed oil and sheet glass, and many of such commodities formerly supplied by importation are being made in the State.

In the clothing and textile group new industries include the weaving of cotton, the manufacture of cotton garments, and other goods, in which Australian as well as imported cotton is used. The establishment of woollen mills in various country centres has been a feature of industrial progress, and there has been considerable advance in the manufacture of silk, cotton, and woollen hosiery and knitted goods. Factories for making sewing cotton and buttons have been opened in recent years.

Large modern factories have been established for food products, many being branches of oversea establishments. The range of commodities produced in establishments for making soap, gelatine, rubber goods and leatherware has been extended widely, and the manufacture of linoleum and coir matting has been commenced. Many kinds of musical and scientific instruments are made, including apparatus for wireless telegraphy, gramophone records and rolls for piano players. The building of bodies for motor-cars is an industry, in which there has been rapid progress, and most of the requisite materials are produced in Australia.

MINING INDUSTRY.

NEW SOUTH WALES contains extensive mineral deposits of great value and variety. Coal was discovered as early as 1796, though under the industrial conditions prevailing at that time its importance was not fully realised. World-wide interest, however, was excited by the announcement in 1831 that gold had been discovered in New South Wales. It attracted a rapid flow of immigration to the country and promoted the development of its resources. In later years copper, tin, and silver-lead deposits were opened up.

With the exhaustion of the known alluvial deposits, where valuable minerals were recoverable without the expenditure of much capital, the organisation of the mining industry has become to a great extent the province of companies and syndicates with the necessary financial resources to instal machinery and to conduct operations on a large scale. Coal and silver-lead have proved to be the richest sources of mineral production.

SUPERVISION OF MINING.

The general supervision of the mining industry in the State and the administration of the enactments relating to mining are functions of the Department of Mines under the control of a responsible Minister of the Crown. In the mining districts Wardens' Courts, each under the sole jurisdiction of a Warden, determine suits relating to the right of occupation of land for mining and other matters in regard to mining operations.

The occupation of land for the purpose of mining is subject to the Mining Act of 1906 and its amendments. Any person may obtain a miner's right which entitles the holder, under prescribed conditions, to occupy Crown land for mining purposes and to mine therein, and to occupy as a residence area land not exceeding a quarter of an acre within the boundaries of a town or village, or 2 acres elsewhere. A holder of a miner's right may apply also for an authority to prospect on Crown lands, and, in the event of the discovery of any mineral, he may be required to apply for a lease of the land or to continue prospecting operations. Another form of occupation of Crown land in connection with mining is under the right conferred by a business license which entitles the holder to occupy a limited area within a gold or mineral field for the purpose of carrying on any business except mining.

A business license confers the right to only one holding at a time. Holders of miners' rights may take possession of more than one tenement, but are required to hold an additional miner's right in respect of each tenement after the first of the same class. The term of a miner's right or business license is not less than six months and not more than twenty years. It may be renewed upon application, and is transferable by endorsement and registration. The fee for a miner's right is at the rate of 5s. per annum, and for a business license £1 per annum.

The number of miners' rights issued during 1929 was 8,684, and of business licenses 292. These figures show a marked decline in comparison with those for the year 1913, when 17,766 miners' rights and 1,039 business licenses were issued.

Crown lands may be granted as mining leases, which authorise mining on the land, and as leases for mining purposes which authorise the use of the land for conserving water, constructing drains, etc., and railways, erecting buildings and machinery and dwellings for miners, generating electricity, dumping residues, and for other works in connection with mining, but do

not allow mining or the removal of minerals from the land. Except in the case of special leases, which may be granted in certain cases, the maximum area of a mining lease varies according to the mineral sought, viz., opal, $\frac{1}{2}$ acre; gold, 25 acres; coal, shale, mineral oils, petroleum, or natural gas, 640 acres; other minerals, 80 acres.

Private lands are open to mining subject to the payment of rent and compensation and to other conditions as prescribed. The mining wardens may grant to the holders of miners' rights authority to enter private lands, but, except with the consent of the owner, the authority does not extend to land on which certain improvements have been effected, *e.g.*, cultivation, or the erection of substantial buildings. An authority may be granted for a period up to two years, and during its currency the holder may apply for a mining lease of the land. Leases of private lands for mining purposes may be granted also. The maximum areas of private lands that may be leased are:—Gold, 25 acres; opal, 150 ft. square; coal and shale, 640 acres; and other minerals, 80 acres. The owners of private lands, with the concurrence of the Minister for Mines, may lease areas under agreement to holders of miners' rights.

Dredging leases may be granted in respect of Crown and private lands, including the beds of rivers, lakes, etc., and land under tidal waters.

Land occupied for Mining.

The area under mining occupation in New South Wales at 31st December, 1929, was approximately 566,614 acres, as shown below, as against 1,533,966 acres in 1928. The area is not stated definitely, as the area held under miners' rights is estimated by the mining registrars in some cases, where the holders are not required to register the areas they occupy. Included in the total in 1928 was an area of 900,000 acres for which application was made in that year to prospect for petroleum in the north-west portion of the State. The application was not renewed in 1929.

Nature of Holding.						Crown Lands.	Private Lands.	Total.
Leases—						acres.	acres.	acres.
Mining ...	...	...	...	...	...	274,181	114,744	388,925
Mining Purposes ...	...	...	...	...	...	7,566	1,994	9,560
Agreements ...	...	...	...	...	...	...	46,551	46,551
Authority to Enter ...	...	...	...	...	...	...	42,915	42,915
Authority to Prospect ...	...	...	...	...	...	16,332	...	16,332
Miners' Rights and Business Licenses ...	...	...	...	...	...	14,180	...	14,180
Applications for Leases—								
Mining ...	...	...	...	...	...	27,900	10,872	38,772
Mining Purposes ...	...	...	...	...	...	2,426	513	2,939
Dredging ...	...	...	...	...	...	996*	...	999
Applications for Authority to Prospect ...	...	...	...	...	...	4,259	...	4,259
Other Mining Titles ...	...	...	...	...	...	1,182	...	1,182
Total						349,025	217,589	566,614

* Includes Private Lands.

The annual rent for mining leases of Crown lands is 2s. per acre, and of private lands 20s. per acre in respect of the surface actually occupied. The rent for dredging leases is 2s. 6d per acre in respect of Crown lands, and it is assessed by the Warden in open court in respect of private lands.

Royalties are payable to the Crown in respect of the minerals won, except in certain cases where they have been obtained from private lands held without reservation of minerals to the Crown. The royalty on coal and shale is charged at the rate of 6d. per ton, and on other minerals at the rate of 1 per cent. of the value.

In regard to mining on private lands held without reservation of minerals to the Crown, royalty is collected by the Department of Mines on behalf of the owner at the rate of 6d. per ton of coal and shale, and 1½ per cent. of the gross value of other minerals, except gold. The Department retains one-sixth and one-ninth respectively of these amounts, and pays the balance to the owner of the minerals. The royalty on gold is payable to the Crown in all cases.

Royalty may be remitted under certain conditions as prescribed by the Mining Acts, *e.g.*, if the gross annual output of minerals, other than coal and shale, won from Crown land under mining lease does not exceed £500. In many cases rents may be deducted from the royalties.

The amount of royalty received during the year 1929 was £204,586, of which £347 was in respect of land held under permits, and the balance from land under lease.

ENCOURAGEMENT OF PROSPECTING.

The State Legislature votes a certain sum each year to encourage prospecting for minerals and to assist miners to open up new fields. The vote is administered by the Prospecting Board, which consists of the Under-Secretary for Mines as Chairman, the Government Geologist, the Chief Inspector of Mines, an inspector, the Chief Mining Surveyor, and a geological surveyor. Miners desiring a grant must satisfy the Board that the locality to be prospected is likely to yield the mineral sought, and that the mode of operation is suitable for its discovery. The amount advanced must be refunded in the event of the discovery of payable mineral by means of the aid. As one of the measures adopted to relieve the unemployment prevalent in 1930, the Government made available an amount of £25,000 to be expended in equipping prospectors for gold. Persons who satisfy the Department of Mines as to their experience are allowed £1 per week each towards their expenses, provided they undertake prospecting to the satisfaction of the Department. Four parties, averaging about sixty men in each, have been operating under supervision of permanent officials in the Gloucester, Braidwood, Bathurst, and Mudgee districts respectively, where gold has been mined successfully in earlier years.

The following statement shows a summary of the amounts allotted to prospectors for the various minerals:—

Period (years ended 30th June).	Amounts allotted to Prospectors for—						
	Gold.	Silver and Lead.	Copper.	Tin.	Coal.	Other Minerals.	Total.
	£	£	£	£	£	£	£
1887-1900	245,791	13,026	9,267	4,684	4,090	7,587	284,445
1901-1905	80,636	5,108	10,136	7,828	40	1,430	105,173
1906-1910	38,822	7,986	20,765	3,146	310	871	71,900
1911-1915	50,209	7,557	8,939	5,870	...	4,837	77,412
1916-1920	32,976	4,325	10,057	3,978	90	5,829	57,255
1921-1925	44,926	8,009	3,709	8,478	1,713	4,578	71,413
1926	9,163	1,756	1,237	2,288	30	1,153	15,627
1927	7,003	3,428	1,550	3,391	625	1,922	17,919
1928	9,063	3,783	179	3,050	400	1,752	18,227
1929	5,435	1,002	...	1,260	...	904	8,901
Total ...	524,324	55,980	65,839	43,973	7,298	30,863	728,277

In each year some of the prospectors fail to complete the works for which aid has been granted, and the amounts allotted are not paid in full. The total amount expended to the end of 1929 in encouraging prospecting was £610,469.

The Government of New South Wales has promised a bonus of £10,000 for the production of 100,000 gallons of petroleum in the State, and has offered rewards ranging up to £1,000 for the discovery of a new mineral field according to the output and to the number of miners employed by the discovery.

In 1926 the Commonwealth Government appropriated from public revenue the sum of £60,000, which was increased to £160,000 in the following year, for the encouragement of prospecting for petroleum oil in Australia, New Guinea, and Papua. Up to the 30th June, 1929, £149,248 had been expended, including £58,488 in 1928-9. Another appropriation, £40,000, was made in 1926, and placed in a Trust Fund for the assistance of persons engaged in prospecting for precious metals in Australia. Of this sum £5,212 was disbursed in 1928-9, making £10,179 to the 30th June, 1929.

In terms of an arrangement between the Government of the Commonwealth and the Empire Marketing Board, as representing the Imperial Government, geophysical methods of prospecting were tested in Australia during 1928 and 1929, in connection with coal and underground water reserves, and the Broken Hill lead-zinc deposits. To defray the cost, sums amounting to £20,000 for the first year and £12,000 for the second year were provided in equal shares by the Commonwealth Government and the Marketing Board. A British geologist, with a staff of assistants, conducted the experiments. In New South Wales certain areas were prospected under this arrangement, and the Department of Mines is conducting boring operations on the more promising of these areas in order to test the results of the surveys, which showed generally that geophysical methods may be applied successfully to New South Wales conditions.

PRICES OF METALS.

The prices of the principal metals depend on market conditions in oversea countries, the local demand being small. The quotations in the following table for silver, lead, copper, and tin are the average spot prices on the London Exchange.

Year.	Silver.	Lead.	Zinc.	Copper.	Tin.
	per oz. s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.
1901	2 3·2	12 10 5	17 0 7	66 19 8	118 12 8
1911	2 0·6	13 19 3	25 3 2	56 1 9	182 13 5
1921	3 0·9	22 14 4	26 4 1	69 8 7	165 6 7
1922	2 10·4	23 15 9	29 15 0	62 3 6	159 10 9
1923	2 7·4	26 16 4	32 18 6	65 18 1	202 5 1
1924	2 9·9	33 13 11	33 12 0	63 4 2	248 17 8
1925	2 8·1	35 17 1	36 3 3	61 18 4	260 15 7
1926	2 4·7	31 2 3	34 2 8	58 0 8	291 3 0
1927	2 2·1	24 8 1	28 9 11	55 12 3	289 1 5
1928	2 2·8	21 3 4	25 5 5	63 14 8	227 4 8
1929	2 0·5	23 4 11	24 17 8	75 9 7	203 18 16

The outstanding feature of the movement of the prices of industrial metals during recent years was the rise of 83 per cent. in the price of tin between 1922 and 1926. The rise continued until March, 1927, when the

price was £313 9s. 5d., there was then a rapid fall and in July, 1928, the price was only £212 11s. per ton. By December, 1929, the price had receded to £179 10s. 2d., the lowest since December, 1922, when it was £178 15s. 6d.

The prices of silver and zinc declined during the last five years; the price of copper, which had been trending downwards, showed in 1928 a marked improvement which was maintained during 1929. Lead prices increased slightly in 1929, after a downward tendency during the preceding four years.

PRICES OF COAL.

Prices of coal depend to a great extent upon local factors. The price varies considerably in the three districts in which coal is mined, the northern coal being usually the dearest and the western the cheapest. In 1929 southern and western values were about the same as in 1928, but northern values were considerably lower than in previous years, chiefly because of the closing of the mines from which the best class of coal is won, and the working of small mines producing an inferior class of coal. The following statement shows the average value per ton at the pits' mouths in each district during various years since 1901.

District.			1901.	1911.	1921.	1925.	1926.	1927.	1928.	1929.
			s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Northern	...	...	8 4	8 0	17 7	17 7	18 10	19 2	19 0	16 8
Southern	...	...	5 3	6 2	16 6	15 11	16 5	16 8	16 6	16 11
Western	...	...	4 10	5 1	12 10	11 1	11 9	12 6	13 1	12 11
All Districts	...	...	7 4	7 3	16 10	16 4	17 4	17 7	17 6	15 8

Between 1911 and 1921 the average price of coal was increased by nearly 130 per cent., marked increases having occurred in consequence of awards of tribunals appointed by the Commonwealth Government during the war period to regulate wages and prices in the industry.

STATISTICS OF MINES.

The statistics relating to the mining industry as published in this chapter are obtained from two sources: (1) the records of the Department of Mines, which, until the year 1921, were the only data available; and (2) returns for 1921 and later years collected from owners by the Government Statistician under the authority of the Census Act, 1901. The principal distinction between the data obtained from these two sources lies in the statistics of the metalliferous mines. The particulars recorded by the Department of Mines relate to metals won during each year, including in many instances those won from minerals brought to grass in past years, whereas the Statistician collects returns of the minerals actually mined during the year.

Moreover, the statistics collected by the Department of Mines sometimes include particulars of ore dressing operations, and the use of the Department's figures for years prior to 1921 involved duplication in regard to the mining and manufacturing industries. In order to obviate this difficulty, the mine owners were asked to supply special returns to the Government Statistician, showing therein information relating to mining operations only, and excluding all particulars regarding the treatment of ores. It is found, however, that it is almost impossible to give separate details regarding the actual operations of mining, especially when the same company undertakes both mining and ore-dressing, and it is under such conditions that the most important branch of metalliferous mining in New South Wales—viz., silver, lead, and zinc—is usually conducted.

Further difficulty arises in regard to the value of the annual output of the metalliferous mines. The value at the mines and before treatment cannot be determined until the minerals have been subjected to the final process for the extraction of the metallic contents, and such operations extend over a long period and in some cases are conducted in localities outside the State. In view of these difficulties the value of the production of metalliferous mines can be calculated only approximately, and attention is directed to the fact that the values as stated in this Year Book are to be regarded as estimates.

The statistics of mines, other than metalliferous, as recorded for years prior to 1926, include particulars of quarries held under mining title. In the compilation of the returns collected for the years 1926 to 1929, these have been excluded from the statistics of the mining industry; therefore, the figures are not strictly comparable with those for the earlier years.

LABOUR AND MACHINERY.

Mining leases and permits contain conditions as to the minimum number of men to be employed. The usual labour conditions in respect of mining leases of Crown lands and of leases or agreements to mine on private lands are as follows:—For coal, shale, mineral oils, petroleum, or natural gas, for first twelve months of term granted, 2 men to 320 acres, thereafter 4 men; for gold, 1 man to 5 acres during the first year, and thereafter 1 man to 2 acres; for other minerals, 1 man to 20 acres during the first year, thereafter 1 man to 10 acres. For dredging leases the prescribed labour is in the proportion of 7 men to 100 acres. The labour conditions may be suspended in cases where low prices for the products or other adverse circumstances affect the working of a mine.

The extent to which the mining industry has provided employment is indicated in the following statement of the approximate number of men employed in the last nine years. The figures represent the sum of the average number employed at each mine in operation during the year.

Year.	Coal and Shale Mines.	Other Mines.							Total number employed (including fossickers).
		Gold.	Silver, Lead, and Zinc.	Copper.	Tin.	Other Metals.	All other Mines.	Total.	
1921	20,973	952	2,035	68	1,169	865		5,089	26,062
1922	21,704	715	1,732	52	751	866		4,116	25,820
1923	23,054	585	2,405	40	702	435	904	5,071	28,125
1924	23,212	713	2,462	56	837	500	998	5,566	28,778
1925	24,038	604	2,747	45	837	405	1,325	5,963	30,001
1926	24,125	842	3,273	64	1,222	453	*450	6,304	30,429
1927	24,483	805	3,315	26	1,236	438	*246	6,066	30,549
1928	21,743	732	2,641	4	1,053	325	*235	4,990	26,733
1929	22,470	701	3,094	25	894	206	*293	5,213	27,683

* Excluding persons employed in quarries held under mining title, included prior to 1926.

The number employed, as stated above, includes "fossickers," viz., gold, 507; tin, 361; other, 98 in 1929. It is probable that they were not wholly engaged in mining, as the value of the output won by them was small.

Duplication of persons employed in coal mines in 1929 exists to some extent, due to the movement of a number of northern miners to the southern and western districts during the stoppage of work in the north from 1st March, 1929, until 2nd June, 1930, and the consequent increase in coal mining in other districts.

No shale miners are included in the figures for the last four years, as operations in the shale mines have been suspended.

The total engaged in gold mining was higher in 1926 and 1927 than in any year since 1921, but the high totals in those years were due to an increase in the number of fossickers.

Additional information regarding miners is shown in the following statement:—

Year.	Coal and Shale Mines.				Other Mines.				
	Work- ing Pro- pri- etors.	Employees above ground.	Employees below ground.	Total.	Work- ing Pro- pri- etors.	Employees above ground.	Employees below ground.	Fossickers.	Total.
1921		5,385	15,588	20,973		2,353	2,286	450	5,089
1922		5,841	15,863	21,704		1,629	1,927	560	4,116
1923		6,227	16,827	23,054		2,188	2,525	358	5,071
1924	55	6,151	17,006	23,212	239	2,127	2,475	725	5,566
1925	60	6,195	17,783	24,038	227	2,362	2,841	533	5,963
1926	73	6,130	17,922	24,125	292*	1,654*	3,115	1,243	6,304*
1927	69	6,203	18,211	24,483	273*	1,554*	3,063	1,176	6,066*
1928	72	5,598	16,073	21,743	212*	1,157*	2,439	1,182	4,990*
1929	137	5,522	16,811	22,470	222*	981*	2,889	1,121	5,213*

*Excluding workers in quarries held under mining title, included prior to 1926.

Of the coal miners, 74 per cent. are employed below ground. In other mines the proportion is less than half the total number of employees.

The employment of boys under 14 years of age and of women and girls in or about a mine is prohibited, and restrictions are placed upon the employment of youths. In 1929 the number of employees under 21 years of age in coal mines was 2,310, of whom 1,639 worked below ground, and 671 on the surface. At other mines the employees under 21 years of age numbered 21 of whom 19 worked above ground.

The value of the machinery used in connection with mining in New South Wales during the year 1929 was £7,939,024; viz., coal mines, £7,127,140; metalliferous mines, £790,761; and other mines, £21,123. The value in each of the last nine years is shown below:—

Year.	Coal and Shale Mines.	Metalliferous Mines.	Other Mines.	Total.
	£	£	£	£
1921	6,636,857	1,481,966	*	8,118,823
1922	6,854,580	1,288,960	*	8,143,540
1923	7,205,061	1,377,462	190,217	8,772,740
1924	7,484,078	1,171,554	172,857	8,828,489
1925	7,693,620	1,099,624	285,961	9,079,215
1926	7,747,139	947,911	41,858†	8,736,908†
1927	8,000,373	957,673	16,083†	8,974,129†
1928	6,989,492	791,530	17,623†	7,798,545†
1929	7,127,140	790,761	21,123†	7,939,024†

* Included with metalliferous mines. † Excluding machinery in quarries held under mining title, included prior to 1926.

The value of the machinery used in mining for the various metals during 1929 was as follows:—Gold, £20,653; silver, lead and zinc, £555,295; tin, £197,158; other metals, £17,655.

The following statement shows separately the value of the plant used in actual mining operations, that is, in winning and weighing the minerals,

hauling them to the surface, ventilating the mines, etc.; and the value of the conveyance plant for transporting the minerals from the surface to wharf or railway:—

Year.	Coal and Shale Mines.			Other Mines.			Total Value of Mining Machinery.
	Mining Operations.	Transporting Minerals to Wharf or Railway.	Other Machinery.	Mining Operations.	Transporting Minerals to Wharf or Railway.	Other Machinery.	
	£	£	£	£	£	£	£
1921	3,614,955	2,561,172	460,730	924,870	122,481	434,615	8,118,823
1922	3,713,263	2,573,399	567,918	797,923	116,077	374,960	8,143,540
1923	4,075,291	2,681,347	448,423	1,090,032	169,241	308,406	8,772,740
1924	4,285,490	2,752,475	446,113	990,239	117,278	236,894	8,828,489
1925	4,514,721	2,833,331	345,568	1,015,761	117,991	251,843	9,079,215
1926	4,524,850	2,880,051	342,238	796,461*	110,820*	82,488*	8,736,908*
1927	4,703,423	2,922,499	374,451	801,396*	103,942*	68,418*	8,974,129*
1928	4,142,718	2,596,756	250,018	681,578*	78,605*	48,870*	7,798,545*
1929	4,231,639	2,601,774	293,727	734,977*	29,655*	47,252*	7,939,024*

* Excluding particulars of quarries held under mining title which were included prior to 1926.

In the coal mines, the value of the machinery employed in mining operations during 1929 represented 59 per cent. of the total value; 37 per cent. was used for transporting the minerals from the surface of the mine to a wharf or railway station. In other mines the proportions were as follows:—Mining operations, 90 per cent.; transporting minerals, 4 per cent. In some cases mine owners have constructed railway lines for the purpose of connecting the mines with the State railway system or with wharves.

Particulars of the power used for operating mining machinery during the last nine years are shown below:—

Year.	Horse power of Machinery—Average used.						
	Coal and Shale Mines.			Other Mines.			Total, all Mines.
	Steam.	Elec- tricity.	Other.	Steam.	Elec- tricity.	Other.	
1921	47,321	16,138	113	12,136	1,931	593	78,232
1922	49,040	16,725	121	8,162	1,585	412	76,045
1923	51,020	23,049	105	13,232	2,482	1,154	91,042
1924	55,481	21,348	107	10,218	3,384	478	91,016
1925	58,666	23,156	978	13,116	5,341	1,011	102,268
1926	62,691	23,008	511	13,847*	2,632*	535*	103,222*
1927	58,177	23,931	154	11,460*	2,631*	751*	97,104*
1928	54,322	27,724	129	7,692*	3,041*	779*	93,687*
1929	54,608	25,914	238	8,010*	2,851*	630*	92,251*

* Excluding particulars of quarries held under mining title, included prior to 1926.

Steam is the principal agency used for operating the machinery. In coal mines the average motive force actually used in 1929 amounted to 80,760 horse-power, of which nearly 68 per cent. was steam and 32 per cent. electricity. Machinery is used extensively for mining coal, and 958,941 tons, or 13 per cent. of the total output, were cut by machines during 1929, as against 23 per cent. in 1928 when the Northern mines were working. Of 286 machines in use, 114 were operated by electricity and 172 by compressed air.

In mines other than coal and shale mines, steam power represented 70 per cent. in 1929 and electricity 25 per cent. of the power used.

The full capacity of mining machinery in that year amounted to 161,562 horse-power, viz., 137,554 h.p. in coal mines and 24,008 h.p. in other mines.

The value of the fuel used during 1929 was £448,035, including 297,658 tons of coal valued at £313,976, and electricity to the value of £111,096.

MINES IN OPERATION.

The following statement is a summary of the particulars furnished by mine owners in returns under the Census Act regarding the mines in operation and the minerals mined during each year from 1921 to 1929. The figures are not a complete record of either the income or expenditure of the undertakings concerned and are not intended to show their financial position collectively or individually:—

Year.	Mines in Operation.	Persons Em- ployed.	Value of					Output.
			Salaries and Wages.	Land, Buildings, etc.	Machinery, and Plant.	Materials and Fuel Used, etc.		
	No.	No.	£	£	£	£	£	
1921	493	26,062	6,430,988	3,428,735	8,118,823	1,770,320	10,191,975	
1922	500	25,820	6,344,284	3,704,782	8,143,540	1,802,612	9,666,007	
1923	476	23,125	6,532,695	4,047,277	8,772,740	1,871,180	10,419,210	
1924	482	23,778	7,512,027	3,963,978	8,828,489	2,096,257	11,844,831	
1925	459	30,001	7,745,739	4,259,668	9,079,215	2,079,491	11,785,903	
1926*	427	30,429	7,511,862	4,224,676	8,736,908	2,266,410	12,084,083	
1927*	378	30,549	7,878,842	4,305,777	8,974,129	2,452,014	12,351,521	
1928*	357	26,733	6,464,788	4,081,725	7,798,445	1,718,760	10,435,522	
1929*	369	27,683	5,242,393	3,981,000	7,939,024	1,346,519	8,832,874	

* Excluding particulars (previously included) of quarries held under mining title.

The figures in the table include statistics of the operations of fossickers, who numbered 1,121 in 1929, and obtained an output valued at £31,601. The corresponding figures for the preceding year were 1,182 fossickers and output, £54,653. The cost of replacing tools worn out during each year and of repairing plant, machinery, etc., is included with the value of materials and fuel used, but many other costs and overhead charges are not included.

Coal mining is the main factor of the progress of the mineral industry, as it supplies more than three-fourths of the output. Coal mining in New South Wales, as in other countries, is liable to intermittency owing to various causes, and in recent years the industry has been affected by reason of the more extensive use of oil as a substitute. Particulars of interruptions to work in the principal collieries over a series of years are shown in the chapter of this volume relating to employment.

In 1922 coal mining was affected adversely by slackness of trade, and in 1923 and 1926 by industrial strife. In 1924 the output was the largest yet recorded, and a decline in the following year was due mainly to dislocations in the shipping industry. In 1927 the quantity of coal raised was less than in 1924 and 1925, but the value was greater on account of higher prices. In 1928 serious depression was apparent in the coal trade, due mainly to diminished demand for export, and as stated earlier in this chapter, practically the whole of the Northern collieries ceased working on 1st March, 1929, and did not resume until the 2nd June, 1930.

Apart from coal mining the output of the Broken Hill silver-lead fields is the most important. In 1921 conditions were unfavourable as prices of metals were low. Moreover, operations at some of the mines were suspended for the greater part of the year in consequence of the partial destruction by fire of the smelting works in South Australia where the products are treated. In 1922 conditions began to improve, and in the succeeding four years there was a steady increase in the value of the output of the metalliferous mines. A drop in the prices of metals, which commenced during 1926, was the cause of a decrease in the output in 1927 and 1928.

Summaries relating to the coal and shale mines, and to the metalliferous and other mines are shown below:—

Year.	Mines in Opera- tion.	Persons Employed (including Fossilickers).	Salaries and Wages.	Value of—			
				Land, Buildings, etc.	Machinery, and Plant.	Materials and Fuel Used, etc.	Output.
Coal and Shale Mines.							
			£	£	£	£	£
1921	143	20,973	5,703,989	3,222,721	6,636,857	1,469,578	9,036,474
1922	148	21,704	5,570,830	3,501,841	6,854,580	1,329,722	8,293,135
1923	146	23,054	5,540,252	3,781,512	7,205,061	1,272,125	8,350,878
1924	149	23,212	6,332,475	3,721,600	7,484,078	1,466,870	9,385,988
1925	143	24,038	6,234,595	3,979,001	7,693,620	1,329,456	9,121,664
1926	141	24,125	6,058,270	3,999,836	7,747,139	1,496,436	9,096,611
1927	135	24,483	6,515,487	4,089,139	8,000,373	1,667,034	9,586,693
1928	153	21,743	5,317,243	3,883,349	6,989,492	1,221,027	8,113,600
1929	180	22,470	4,053,746	3,778,955	7,127,140	824,940	6,294,870
Other Mines.							
			£	£	£	£	£
1921	350	5,089	726,989	206,014	1,481,966	300,742	1,155,501
1922	352	4,116	773,454	202,941	1,288,960	472,890	1,372,872
1923	330	5,071	992,443	265,765	1,567,679	599,055	2,068,332
1924	333	5,566	1,179,552	242,378	1,344,411	629,387	2,458,843
1925	316	5,963	1,511,144	280,667	1,385,595	750,035	2,663,339
1926*	286	6,304	1,453,592	224,840	989,769	769,974	2,987,472
1927*	243	6,066	1,363,355	216,638	973,756	784,980	2,764,828
1928*	204	4,990	1,147,545	198,376	808,953	497,733	2,321,922
1929*	189	5,213	1,188,647	202,045	811,884	521,579	2,538,004

*Excluding particulars of quarries held under mining title, included prior to 1926.

The materials used in coal mines in 1929 consisted of timber, £151,883, and other materials, £405,099. The value of fuel used was £267,958.

In other mines the value of timber used in 1929 was £199,446, other materials £142,056, fuel consumed £180,077.

MINERALS WON—AS RECORDED BY DEPARTMENT OF MINES.

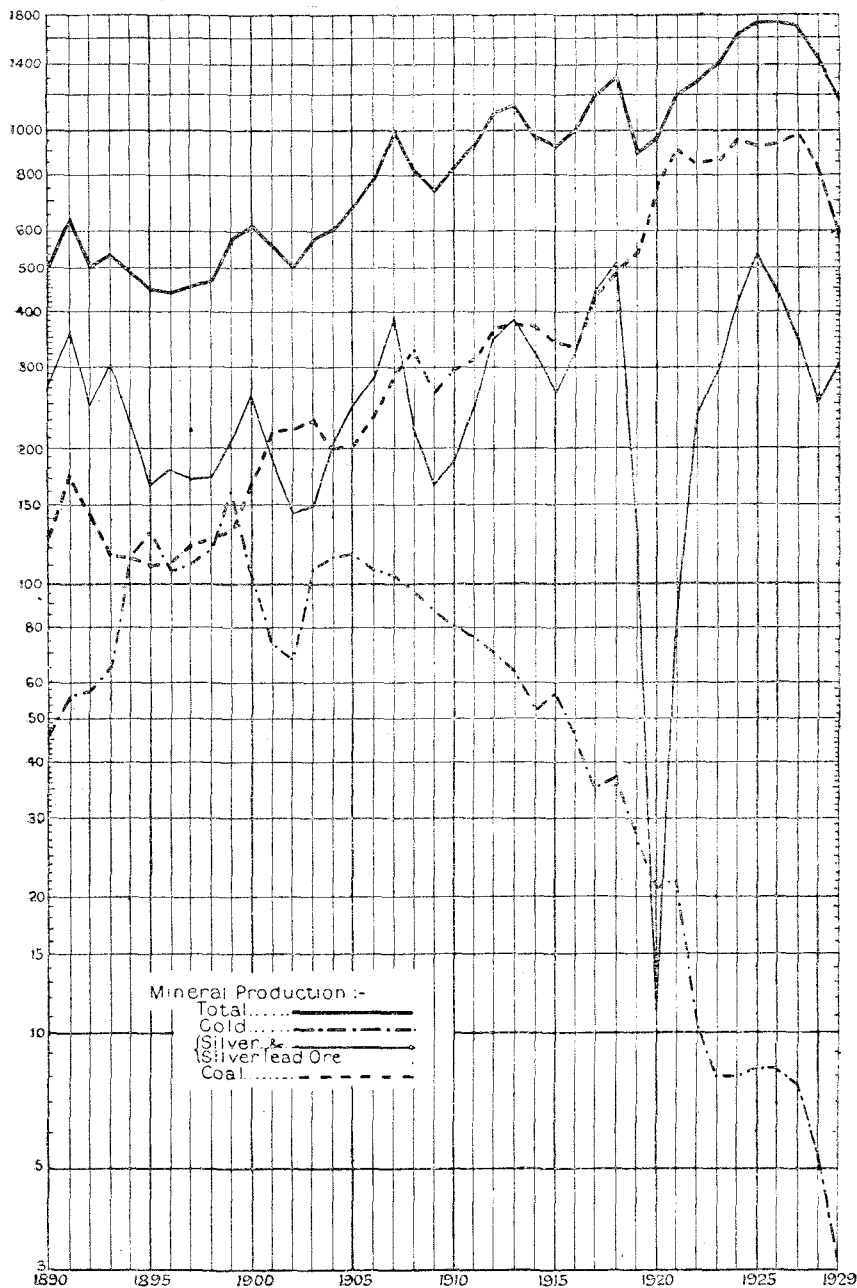
The particulars relating to the minerals won, as shown in the following pages of this chapter, have been obtained from the records of the Department of Mines. For reasons stated on page 392 they differ from those in the preceding tables, and the figures relating to production include, in many cases, the value of the ores after treatment at the mines. From the particulars shown in the annual reports of the Department those regarding the output of iron made from scrap, Portland cement and lime have been deducted, as they are included in the statistics of factories in the preceding chapter of this volume.

The average annual value of the minerals won in each quinquennial period from 1901 to 1925, the annual production since 1921, and the total production to the end of each period are shown below:—

Period.	Value of Minerals Won.		Year.	Value of Minerals Won.	
	Average per annum.	Total to end of period.		During year.	To end of year.
To end of 1900	£	£	1921	£	£
1901-05	5,873,176	132,535,358	1922	12,066,370	320,578,176
1906-10	8,330,883	161,901,240	1923	12,958,008	333,536,184
1911-15	10,169,752	203,555,656	1924	14,232,019	347,768,203
1916-20	10,821,478	254,404,418	1925	16,397,580	364,165,783
1921-25	14,622,631	308,511,806	1926	17,459,179	381,624,962
		381,624,962	1927	17,509,718	399,134,680
			1928	17,048,370	416,183,050
			1929	14,363,569	430,546,619
				11,923,515	442,470,134

VALUE OF MINERAL PRODUCTION, 1890 to 1929.

Ratio Graph.



The numbers at the side of the graph represent £10,000.
 The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

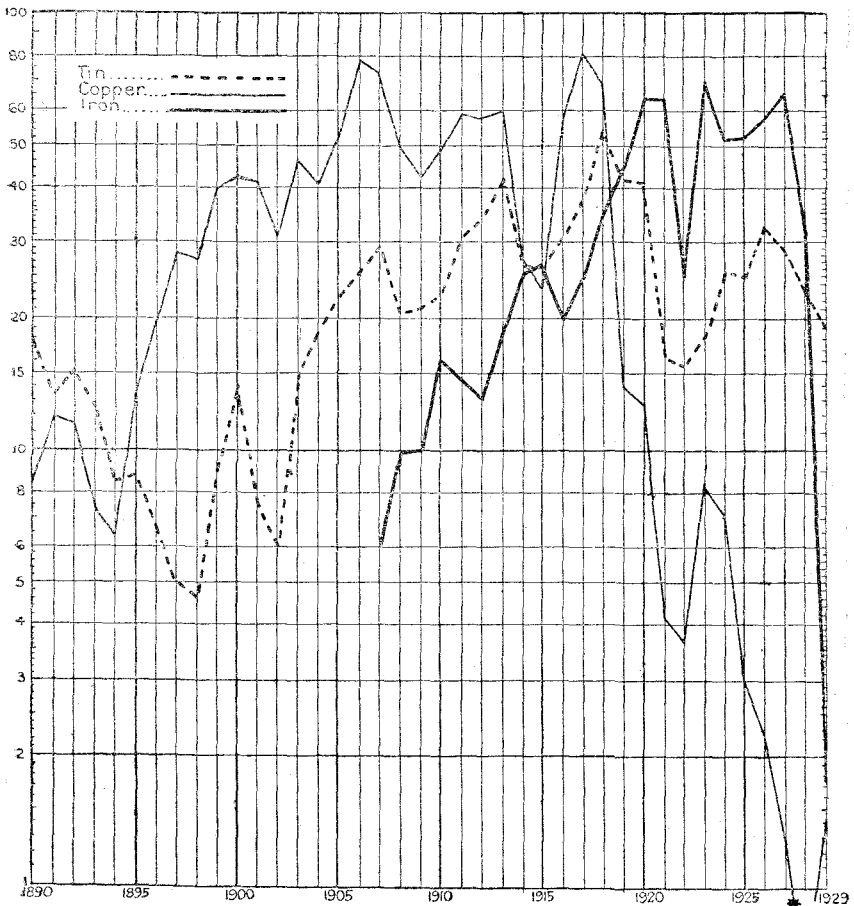
The value of the minerals won rose from £12,958,008 in 1922 to £16,397,580 in 1924. An increase of £1,000,000 occurred in 1925, but it was due mainly to the inclusion of the output from all quarries, whereas the figures for

earlier years included only the output from quarries held under mining title. The value in 1926 was the highest yet recorded, being slightly in excess of the value in the previous year. There was a decline of £461,000 in 1927, which may be attributed to a fall in the prices of lead and zinc. In the following year, the value declined by £2,685,000 as a result of depression in the coal-mining industry, and a fall in the prices of the principal metal-liferous products, e.g., lead, zinc, and tin. The fall in 1929 was due principally to the decreased output of coal.

At the end of the year 1900 the value of the gold won, £48,422,000, exceeded that of any other mineral, but with the subsequent decline in gold mining and the development of the coal and silver-lead fields, coal advanced rapidly to the head of the list, and the value of the silver and lead surpassed the output of gold. At the end of 1929 the value of the coal production represented 42 per cent. of the total value, silver and lead 27 per cent., and gold 15 per cent.

VALUE OF PRODUCTION—TIN, COPPER, AND IRON, 1890 to 1929.

Ratio Graph.



*The value of the copper produced in 1928, viz: £3,500, was below the limit of the graph.

The numbers at the side of the graph represent £10,000.

The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

The values of the ores are estimated after assay. Many of the metals are associated in the same mineral matter and it is very difficult to make a reliable estimate of the quantity and value, especially in cases where the ores are exported before final treatment.

The following statement shows the quantity and value of the various minerals won as estimated for the years 1928 and 1929, also the total yield to the end of 1929:—

Minerals;	Annual Output.				Total Output to end of 1929.	
	1928.		1929.			
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Gold oz. fine	12,831	£ 54,503	7,406	£ 31,842	14,988,073	£ 63,667,799
Silver "	8,573	936	4,471	392	45,469,276	8,103,666
Silver-lead ore, etc. ... tons	247,847	2,491,153	285,031	3,032,349	11,430,744	105,390,194
Lead—Pig, etc. ... .. "	...	...	...	...	326,621	6,442,397
Zinc—Spelter and concentrates "	314,864	1,118,541	231,237	802,693	6,970,890	22,884,030
Copper "	55	3,497	176	14,183	266,077	15,570,634
Tin ingots and ore "	1,020	231,843	934	191,199	133,720	14,388,719
Iron—Pig (from local ores) ... "	56,776	312,268	3,911	17,600	†1,561,869	7,493,435
Iron oxide "	4,658	2,660	4,753	2,757	76,797	80,570
Ironstone flux ... .. "	...	...	...	...	132,655	108,791
Chrome iron ore ... .. "	...	...	129	598	38,894	122,058
Wolfram ... .. "	...	...	14	1,402	2,292	269,397
Scheelite ... .. "	...	...	9	813	1,699	193,183
Platinum oz.	354	4,544	128	1,352	18,928	118,722
Molybdenite tons	2	390	1	46	830	212,236
Antimony "	47	3,697	25	1,877	19,281	356,833
Manganese ore "	167	568	233	946	36,827	80,242
Bismuth "	6	371	3	2,013	824	235,865
Coal "	9,448,197	8,263,729	7,617,736	5,952,720	350,227,793	184,388,880
Shale ... .. "	...	...	...	...	1,919,685	2,690,710
Alunite ... .. "	...	...	...	...	58,189	208,715
Limestone flux "	79,846	29,942	69,243	25,966	2,624,479	1,202,350
Diamonds carats	28	60	119	148	202,578	144,964
Opal "	...	11,000	...	6,071	...	1,591,833
Clays tons	2,152,595	444,445	1,944,222	400,947	}	8,543,226
Building material "	655,519	284,858	792,838	294,366		
Road material "	...	991,310	...	1,031,957		
Other "	...	113,254	...	...
Total "	...	14,363,569	...	11,923,515	...	442,470,184

* Exclusive of output prior to 1925 from quarries, except those held under mining title.

† Includes iron made from scrap, valued at £1,416,030, which is not included in total value.

During 1929 there was increased production, as compared with the previous year, of silver-lead ore, and decreases in the quantity of gold, silver, zinc, tin, iron, and coal.

GOLD.

Though gold had been found in New South Wales in earlier years, the history of gold-mining in the State dates from 1851, when its existence in payable quantities was proved by E. H. Hargraves, and the principal gold-fields were discovered. The deposits which have been mined include various types, *e.g.*, alluvial gold, auriferous reefs or lodes, impregnations in stratified deposits and igneous rocks, and irregular deposits, as in auriferous ironstone.

Many rich alluvial deposits in which gold was easily accessible were exploited during the twenty years 1851-1870; then it became necessary to introduce expensive methods of mining, and the production declined. During the period of general depression which followed the financial crisis of 1893 greater attention was paid to prospecting for minerals, and with the development of new processes the output of gold showed considerable improvement. During recent years, however, there has been a steady decline,

and the yield in 1929, 7,496 oz. fine was the lowest recorded in any year since 1851. Of this production, 3,600 oz. were obtained from the treatment of silver-lead ores from Broken Hill.

The following table shows the quantity and value of the gold won to the end of 1929:—

Period.	Quantity.	Value.	Period.	Quantity.	Value.
	oz. fine.	£		cz. fine.	£
1851-1900	11,399,508	48,422,001	1925	19,422	82,498
1901-1910	2,252,851	9,569,492	1926	19,435	82,551
1911-1920	1,145,185	4,864,440	1927	18,032	76,505
1921	51,173	217,370	1928	12,831	54,503
1922	25,222	107,139	1929	7,496	31,842
1923	18,833	79,998			
1924	18,685	79,370	Total	14,988,673	63,667,799

Towards the end of the nineteenth century a system of dredging was introduced for the purpose of recovering alluvial gold from the beds of the rivers which drain auriferous country, and in 1900 the quantity obtained by the dredges was 7,924 oz. of fine gold, valued at £33,660. During the following decade the quantity amounted to 298,416 oz. fine, valued at £1,267,593. Subsequently the output of the dredges declined, until in 1929 it was only 91 oz. fine, as compared with 1928 oz. fine, value £7,550, during the preceding year. Dredges are employed also for the recovery of stream tin; particulars are shown on page .

SILVER, LEAD, AND ZINC.

The production of lead and zinc in New South Wales is associated closely with the mining of silver, the Broken Hill silver-lead deposits being the main source of the output.

The Broken Hill field was discovered in 1883, and it has become one of the principal mining centres of the world. The lode, varying in width from 10 feet to 400 feet, may be traced for several miles. Mining leases held by companies and syndicates extend along its entire length, but operations are confined to an extent of $3\frac{1}{2}$ miles in the centre. Underneath an outcrop of manganiferous ironstone were found rich oxidised ores, consisting of carbonate of lead and kaolin with silver, and, below these ores, mixed sulphides of lead and zinc with a high silver content. As the depth increased the proportions of silver, lead, and zinc became smaller, and the gangue was found to consist of rhodonite which causes difficulty in the extraction of the metals.

For some years operations were directed towards the recovery of silver in the ores which contained the metal in payable quantities. The other metals were not recovered because the current price for lead was comparatively low and a method had not been devised by which the lead and zinc in the complex sulphide ores could be separated profitably. Consequently huge dumps of residue and low-grade ores accumulated at the mines until the development of new processes for the separation of the sulphides by means of flotation led to their treatment.

Lead and zinc concentrates have been produced in large quantities at Broken Hill. The former contain lead amounting to 60 or 65 per cent., silver 20 to 25 oz. per ton, zinc 7 to 8 per cent, and sulphur 15 per cent. The zinc concentrates contain zinc, about 45 per cent., lead 6 per cent., silver 10 oz. per ton, and sulphur 30 per cent. The lead concentrates are treated at Port Pirie in South Australia. The greater part of the zinc

concentrates is exported to the United Kingdom and other European countries or to Japan, but large quantities are treated in Australia at Risdon, Tasmania.

During 1929 the output of ore from the Broken Hill mines amounted to 1,229,189 tons, valued at £4,054,677.

Another silver field of importance, known as Yerranderie, is situated in the Burragorang Valley. The lodes are small, varying in width from mere threads to 8 feet, but they are exceptionally rich. The bulk of the silver is associated with galena, which contains up to 160 oz. per ton. Second-grade ores contain from 40 to 80 oz. per ton. The Yerranderie field is handicapped by the high cost of haulage along a steeply-graded road to the nearest railway, therefore only first-grade ore is despatched from the mines, the lower grades being stacked for concentration or future treatment.

Smaller silver fields are situated in various parts of the State, and extensive developmental work is in progress at Captain's Flat. The construction of a railway has been sanctioned to link Captain's Flat with Bungendore on the Sydney to Cooma railway.

In assessing the quantity and value of the metals won from the silver-lead ores mined in New South Wales, the Department of Mines estimates the total value on the basis of the metal produced within the State and the value of the ore, concentrates, etc., not smelted within the State, as declared by the several companies at the date of export from the State. The following table is a summary of the Department's records of the quantity and value of the silver and lead produced in New South Wales from local ores, and the quantity and value of silver-lead and zinc concentrates produced in the State and despatched elsewhere for treatment:—

Period.	Silver.	Silver-lead Concentrates, Carbonate ore, etc.	Lead-Pig, in Matte, etc.	Zinc Concentrates.
Quantity.				
	oz.	tons.	tons.	tons.
To 1900	9,572,829	3,020,611	14,680	138,901
1901-1905	4,154,020	1,985,868	17,550	183,782
1906-1910	8,310,962	1,751,751	71,435	1,460,138*
1911-1915	12,460,553	1,694,834	114,375	2,093,783
1916-1920	7,982,192	866,654	80,115	553,628
1921-1925	2,960,993	1,013,376	28,466	1,449,599
1926	9,342	274,513	...	267,533
1927	5,341	290,259	...	277,425
1928	8,573	247,847	...	314,864
1929	4,471	285,031	...	231,237
Total ...	45,469,276	11,430,744	326,621	6,970,890
Value.				
	£	£	£	£
To 1900	1,562,501	28,924,613	274,585	157,066
1901-1905	445,051	8,910,586	255,366	440,402
1906-1910	892,414	11,561,794	996,646	3,761,223
1911-1915	1,302,510	14,302,570	1,899,601	6,861,489
1916-1920	1,426,886	12,920,076	2,358,625	2,195,599
1921-1925	471,312	15,360,784	657,574	5,171,152
1926	1,130	4,398,823	...	1,359,588
1927	534	3,487,446	...	996,877
1928	936	2,491,153	...	1,118,541
1929	392	3,032,349	...	802,693
Total ...	6,103,666	105,390,194	6,442,397	22,864,630

* Includes 2,758 tons of spelter.

The total value of the production, as shown above, amounted to £3,835,434 in 1929, as compared with £3,610,630 in the preceding year, the increase being contributed to by an advance in metal prices. The decrease in value, as recorded by the Department of Mines, in the years 1926 to 1928, was due to a fall in the prices of metals.

As stated previously, the bulk of the ores produced in the silver-lead mines is exported for treatment to other parts of Australia or despatched in the form of concentrates to overseas countries, therefore the figures shown in the preceding table do not indicate fully the importance of the mines of New South Wales in respect of the production of the various metals. The Department of Mines has collected records from the various mining and smelting companies and ore-buyers with the object of ascertaining the actual value accruing to the Commonwealth from the silver-lead mines of this State. Thus particulars have been obtained regarding the quantity and value of the silver, lead, and zinc extracted within the Commonwealth, and the gross metallic contents of concentrates exported overseas have been estimated on the basis of average assays as follows. In the case of the lead and zinc contents, the quantities have been estimated only when payment was made for them.

Year.	Metal obtained within Commonwealth from ores raised in New South Wales.				Concentrates exported overseas.						Total Value of Production from Silver-lead Ores of New South Wales.
	Silver.	Lead.	Zinc.	Aggregate Value.	Quantity.	Contents by average assay.			Assessed Value.		
						Silver.	Lead.	Zinc.			
1921	oz. fine. 3,624,413	tons. 47,426	tons. 1,425	£ 1,723,864	tons. 47,127	oz. fine. 617,477	tons. 6,589	tons. 19,272	£ 261,238	£ 1,985,102	
1922	6,648,825	97,867	23,724	4,113,427	287,074	3,264,102	19,328	132,186	1,272,074	5,885,501	
1923	7,223,236	124,570	41,153	5,707,739	356,139	4,834,718	40,006	149,319	1,813,287	7,521,026	
1924	3,292,978	120,380	43,579	6,472,812	261,404	2,963,693	21,513	114,374	1,292,220	7,765,032	
1925	7,437,967	139,839	39,991	7,539,130	184,712	1,782,193	30,752	75,435	1,371,183	8,910,313	
1926	7,338,477	142,654	39,277	6,730,089	251,294	2,371,264	23,242	96,167	1,591,673	8,322,362	
1927	7,901,861	156,306	42,757	5,955,009	259,989	2,339,382	26,709	117,113	1,467,235	7,422,244	
1928	7,068,964	151,475	44,604	5,256,649	178,714	1,259,931	11,732	94,987	886,620	6,093,269	
1929	7,610,884	165,364	46,163	5,918,014	156,532	835,697	7,009	76,619	734,261	6,652,275	

The silver-lead ores mined in New South Wales contain, in addition to silver, lead, and zinc, a number of other metals, *e.g.*, cadmium, copper, gold, and antimony, but unless these metals are extracted within New South Wales they are not represented in statistics of the mineral production of the State, except by inclusion as zinc concentrates.

Cadmium is recovered at Risdon, Tasmania, as a by-product in the treatment of zinc ores mined at Broken Hill. The quantity extracted during 1929 was 182 tons, valued at £81,343.

COPPER.

The ores of copper are distributed widely throughout New South Wales. Deposits of commercial value have been mined in the central portion of the State, but the industry has been handicapped severely in many places by the high cost of transport to market, and, as the price fluctuates considerably, operations have been intermittent. Large quantities of low-grade ores are available, and when the market is favourable they may be treated profitably.

The quantity and value of the copper won in New South Wales, as estimated by the Department of Mines, are shown below:—

Period.	Ingots, Matte, and Regulus.		Ore.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	tons.	£	tons.	£	£
1858-1900	95,501	5,474,309	6,101	92,651	5,566,960
1901-1905	33,989	2,011,609	8,578	104,533	2,116,142
1906-1910	41,898	2,869,101	6,872	62,066	2,931,107
1911-1915	36,305	2,169,508	9,870	108,226	2,277,734
1916-1920	21,453	2,355,248	554	8,887	2,364,135
1921-1925	3,863	259,926	129	1,822	261,748
1926	357	22,473	...	...	22,473
1927	186	11,290	190	1,365	12,655
1928	55	3,497	...	...	3,497
1929	176	14,183	...	...	14,183
Total ...	233,783	15,191,144	32,294	370,490	15,570,634

The marked decrease in the output of copper during recent years was not due to a decline in the productive capacity of the mines, but to decreases in price, which precluded profitable working under existing costs.

TIN.

Tin, unlike copper, is restricted in its geographical and petrological range, and is the rarest of the common metals of commerce. The lodes discovered in New South Wales are numerous, but they are on a small scale. The maximum depth attained is about 360 feet.

Tin ore occurs in the northern, southern, and western divisions. The areas in which workable quantities are known to exist are on the western fall of the New England Tableland, with Emmaville and Tingha as the chief centres, and at Ardlethan in the southern district. Alluvial deposits of stream tin in the northern rivers are exploited by means of dredging.

Tin has contributed in a very considerable degree to the total production of the mineral wealth of the State, although its aggregate yield, in point of value, is below that of coal, silver, gold, copper, and zinc.

Particulars of the output and the value of production of tin are shown below:—

Period.	Ingots.		Ore.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	tons.	£	tons.	£	£
1872-1900	67,055	5,879,803	18,581	908,130	6,787,933
1901-1905	4,319	557,855	1,994	142,977	700,832
1906-1910	5,244	816,061	3,947	377,620	1,193,681
1911-1915	4,268	793,550	7,262	806,815	1,600,365
1916-1920	4,346	1,053,645	6,953	1,005,841	2,059,486
1921-1925	3,628	805,294	2,005	204,073	1,009,367
1926	1,134	326,474	...	...	326,474
1927	976	285,806	54	1,733	287,539
1928	1,020	231,843	...	...	231,843
1929	934	191,199	...	...	191,199
Total ...	92,924	11,941,530	40,796	3,447,189	14,388,719

The output in 1929, which was the lowest since 1923, was 17.5 per cent. less than in 1928 and 33.5 per cent. less than in 1928, the decrease being due to the sharp decline in the price of the metal, to which reference is made earlier in this chapter.

In 1929 forty-four pump dredges and one bucket dredge were employed in recovering tin in the northern districts. The quantity of tin so obtained was 531 tons, valued at £68,345, as compared with 635 tons, valued at £96,121, in the previous year. The total yield by dredging since 1901 has been 28,274 tons, valued at £3,646,977.

IRON AND IRON ORES.

Iron ore of good quality occurs in many parts of New South Wales. The most extensive deposits are at Cadia, where 10,000,000 tons may be recovered economically; at Carcoar, where a large quantity has been produced; and at Goulburn and Queanbeyan, each containing about 1,000,000 tons; at Wingello there are about 3,000,000 tons of aluminous iron ores of low grade. It has been estimated that in the known deposits, excluding Wingello ores, there are 15,000,000 tons which may be recovered by quarrying, and that a much greater quantity may be obtained by more costly methods of mining.

Prior to 1907 iron ore was mined principally for use as flux in smelting other ores, although in 1884, at Mittagong, and in later years at Lithgow, the production of pig-iron from local ores had been attempted without permanent success. Following a reorganisation and remodelling of the Eskbank Ironworks, Lithgow, the production of iron ore has been on a more extensive scale since 1907, although only the Cadia, Carcoar, and smaller deposits have been mined.

The production of pig-iron from local ores since 1907, and the materials used therein, are shown in the following table. The output prior to that year was principally from scrap iron:—

Year.	Principal Minerals Used.			Pig-iron.	
	Iron Ore.	Coke.	Limestone.	Production.	Value.
	tons.	tons.	tons.	tons.	£
1907-10	205,271	146,411	89,439	116,273	421,632
1911-15	451,953	350,674	158,888	267,062	983,633
1916-20	502,768	448,377	214,103	332,690	1,885,617
1921-25	758,143	594,269	307,950	408,864	2,639,850
1926	178,746	157,990	72,636	105,201	578,605
1927	*	*	*	118,951	654,230
1928	*	*	*	56,776	312,268
1929	*	*	*	3,911	17,600
Total ...	...	...	...	1,409,728	7,493,435

* Not available for publication.

Further details relating to the operations of ironworks are shown in the chapter relating to factories.

Iron Oxide.

Iron oxide is obtained in the Port Macquarie, Moss Vale, Newcastle, Milton, and Goulburn districts for use in purifying gas or as a pigment.

The output during 1929 was 4,753 tons, valued at £2,757, mined in Port Macquarie and Milton districts. The total output to the end of 1929 was 76,797 tons, valued at £30,570.

OTHER METALS.

Platinum.—Platinum occurs in several districts of New South Wales, but platinum mining is comparatively unimportant. The quantity produced to the end of 1929 amounted to 18,928 oz., valued at £118,722, of which 128 oz., valued at £1,352, were obtained during 1929.

Chromite.—Chromite, or chromic iron ore, is the only commercially important ore of chromium. It is found usually in association with serpentine. The chromite mined in New South Wales is used as a refractory material. The principal deposits are in the Gundagai and Tumut districts, and there are smaller quantities in the northern portion of the State. The quantity produced during 1929 was 128 tons, valued at £598, making the total output to the end of 1929, 38,894 tons, valued at £122,059.

Tungsten ores.—The tungsten ores, wolfram and scheelite, occur in many localities in New South Wales generally in association with tinstone (cassiterite) bismuth, and molybdenite. These ores are used mainly in the manufacture of special steels for which the demand increased during the war period and declined upon the cessation of hostilities. Owing to the low price offered for the products, there was no production of scheelite between 1920 and 1928 and no wolfram was won between 1925 and 1928. In 1929 a small demand set in for both ores, and 9 tons of scheelite valued at £813, and 14 tons of wolfram valued at £1,402 were produced, making the total values of production to the end of 1929, £193,188 and £269,297 respectively.

Molybdenum.—Supplies of molybdenite, the principal ore of molybdenum, exist in New South Wales. Its main use, however, is for the manufacture of molybdenum steel, and, as in the case of tungsten ores, the demand has become almost negligible.

Antimony.—This mineral may be obtained in a number of districts, in the north-east of the State. Owing to fluctuations in the price of the metal, mining is spasmodic. The total output of antimony to the end of the year 1929 was 19,281 tons, valued at £356,833, of which 25 tons, valued at £1,877, were produced in 1929.

Manganese.—Manganese ores have been discovered in various places but generally in localities which lack facilities for transport. During the year 1929 the quantity obtained was 233 tons, valued at £946.

Bismuth.—Bismuth has been obtained chiefly in the neighbourhood of Glen Innes, and at Whipstick in the South Coast division. In other districts bismuth is associated with molybdenite and wolfram ores. The quantity of bismuth produced in 1929 was about 3 tons, valued at £2,013, the quantity produced to the end of 1929 being 824 tons of ore, valued at £235,865.

Mercury.—Cinnabar, the most important ore of mercury, occurs in numerous localities, but it has not been discovered in a sufficiently concentrated form to enable it to be mined profitably. No production of quicksilver has been recorded since 1916.

COAL.

The main coal basin extends along the coast from Port Stephens on the north to Ulladulla on the south, and this seaboard of nearly 200 miles enhances the value of the deposits by facilitating shipment and the development of oversea trade. From Ulladulla the basin trends inland to the west

and north-west as far as Rylstone, whence the boundary line extends northward beyond Gunnedah, and then runs in a south-easterly direction to Port Stephens. The widest part of the area is between Dubbo and Newcastle, 150 miles, and the basin is deepest in the neighbourhood of Sydney, where the uppermost seam is nearly 3,000 feet below the surface.

From Sydney the measures rise gradually in all directions. They emerge to the surface at Newcastle on the north, at Bulli in the Illawarra district to the south, and at Lithgow, in the Blue Mountain region, to the west, and these three districts contain the important coal mining centres.

The Upper or Newcastle coal measures show the greatest surface development. In the northern field they are known to contain twelve seams, six being worked; in the southern, seven distinct seams are known, and three have been worked; of the seven seams traced in the western field, only three are of commercial value. After many unsuccessful boring operations, the uppermost seam of the Newcastle measures was located under Sydney Harbour in 1891, and it has been worked to a depth of nearly 3,000 feet.

The coal obtained at Newcastle is suitable for gas making and for household use. The coal from Bulli and Lithgow is essentially steam coal. The southern coal produces a strong coke, specially suitable for smelting purposes by reason of its capacity for sustaining the weight of the ore burden in a blast furnace, and it contains less ash than the western. The coal obtained at the Sydney Harbour Colliery can be loaded into oversea steamers from a wharf near the pit's mouth.

An isolated basin of upper coal measures has been discovered at Coorabin in the Riverina district, 400 miles from Sydney.

In the western and southern fields the upper coal measures contain deposits of shale suitable for the manufacture of kerosene oil and for the production of gas. Deposits of kerosene shale, though much less extensive, occur in the upper and Greta measures of the northern coal-field.

The middle coal measures outcrop near East Maitland, but do not appear in the western field. Their occurrence in the southern field has not been proved definitely.

The lower or Greta measures outcrop over an irregular area in the neighbourhood of Maitland, and have been traced with intervening breaks as far north as Wingen. They occur as an isolated belt to the north of Inverell, and extend through Ashford, almost to the Queensland border. These measures have been located in the Clyde Valley, in the extreme southern portion of the Illawarra field, but do not occur in the western. The coal of the Greta measures is contained in two seams, and is the purest and generally the most useful obtained in the State, being of a good quality, hard, and economical as regards working. The Greta seams are worked extensively between West Maitland and Cessnock, in the most important coal-mining district in Australia, and at Muswellbrook.

State Coal Mine.

The State Coal Mines Act, 1912, empowers the Government to purchase or resume coal-bearing lands or coal mines and to open and work coal mines upon Crown land or upon private land containing coal reserved to the Crown or acquired for the purpose of a State coal mine. The coal obtained from a State mine is to be used only by the State Departments or undertakings.

A State coal mine was opened at Lithgow, in the Western district, in September, 1916. The area of the land containing coal reserved for the Crown amounts to about 40,200 acres, and the available supply of coal has

been estimated at 240,000,000 tons. The mine, which was closed in July, 1917, was taken over by the Railway Commissioners in the early part of 1921. The output from the mine was 253,975 tons in 1923-24; 263,538 tons, 240,174 tons, 286,704 tons, 390,981 tons, and 488,975 tons in the succeeding years.

Production of Coal.

The following table shows the quantity and value of coal raised in New South Wales to the close of 1929, the total production being 350,227,793 tons, valued at £184,388,880:—

Period.	Coal Raised.	Value at Pit's Mouth.	Average value per ton.
	tons.	£	s. d.
To 1900	91,476,633	37,315,915	8 1
1901-05	30,917,230	10,703,600	6 11
1906-10	40,624,693	14,240,992	7 0
1911-15	48,831,214	17,759,946	7 3
1916-20	44,830,757	25,847,168	11 6
1921-25	54,469,448	45,086,283	16 7
1926	10,885,766	9,436,520	17 4
1927	11,126,114	9,782,002	17 7
1928	9,448,197	8,263,729	17 6
1929	7,617,736	5,952,720	15 8
Total ...	350,227,793	184,388,880	10 6

The production of coal exceeded 10,000,000 tons in each year from 1920 to 1927, reaching the maximum in 1924 when the production was 11,618,216 tons. The quantity raised in 1926 was lower mainly as a result of industrial strife. In the following year there was an increase in production in the southern and western coalfields, but a decline in the northern district, where trade conditions were unfavourable during the latter months of the year. The output in 1928 showed a decline in all the districts, while the 1929 output was the lowest recorded since 1909, due to the pits of the Associated Northern Collieries suspending operations early in March, 1929, owing to the alleged high cost of production and remaining idle throughout the year.

The bulk of the coal is obtained from the northern coal-fields. The output of each district during 1929 was:—Northern, 3,019,693 tons, valued at £2,517,929; Southern, 2,339,837 tons, £1,980,443; Western, 2,258,206 tons, £1,454,348. The decreased production in the north was partly offset by the increase of the Southern and Western mines which were not affected by the stoppage.

A statement regarding the average value at the pit's mouth of the coal raised in each district is shown on page .

The following statement shows the quantity of New South Wales coal consumed in Australia, including bunker coal taken by interstate vessels, and the overseas exports, in each year since 1919. The bunker coal loaded in Sydney Harbour into interstate steamers is included in the table under

the heading "domestic consumption," because it has not been distinguished in the records from the coal taken in that port by intrastate vessels:—

Year.	Retained for Domestic Consumption	Sent to other Australian States.	Total quantity consumed in Australia.	Exported to Oversea Countries.	Total Production.
	tons.	tons.	tons.	tons.	tons.
1919	5,128,536	1,891,317	7,019,853	1,611,701	8,631,554
1920	5,729,208	2,270,556	7,999,764	2,716,235	10,715,999
1921	5,268,628	2,752,810	8,021,438	2,771,949	10,793,387
1922	4,943,736	2,841,253	7,784,989	2,398,144	10,183,133
1923	5,578,385	2,518,579	8,096,964	2,381,549	10,478,513
1924	6,204,272	3,036,881	9,301,153	2,317,063	11,618,216
1925	6,625,161	3,001,823	9,626,984	1,769,215	11,396,199
1926	6,347,939	2,740,570	9,088,509	1,797,257	10,885,766
1927	6,786,906	2,651,492	9,438,398	1,687,716	11,126,114
1928	6,102,644	2,209,981	8,312,625	1,135,372	9,448,197
1929	5,685,551	1,237,272	6,922,823	694,913	7,617,736
Per cent. of Total.					
1919	59·4	21·9	81·3	18·7	100
1920	53·5	21·2	74·7	25·3	100
1921	48·8	25·5	74·3	25·7	100
1922	48·5	27·9	76·4	23·6	100
1923	53·2	24·1	77·3	22·7	100
1924	53·4	26·7	80·1	19·9	100
1925	58·1	26·4	84·5	15·5	100
1926	58·3	25·2	83·5	16·5	100
1927	61·0	23·8	84·8	15·2	100
1928	64·6	23·4	88·0	12·0	100
1929	74·6	16·2	90·8	9·2	100

The domestic consumption of coal decreased during 1921 and 1922 as a result of restricted operations in many important manufacturing industries, *e.g.*, iron and steel works. On the other hand the export trade was brisk in consequence of industrial strife in Great Britain and in the United States. In 1923 there was a marked increase in the domestic consumption, and the export trade was maintained at a fairly high level.

In 1924 and 1925 interstate exports were large but overseas trade declined in the latter year when shipping activities were hampered by industrial disputes. In 1926 there was a decrease in the interstate exports and in the quantity retained for local consumption, the overseas exports being somewhat greater than in 1925. In the following year exports declined, and a larger quantity remained for domestic consumption. In 1928 and again in 1929 there was a marked decline in the local demand as well as in the export trade. The State Government formulated proposals in 1928 whereby the price of coal would be reduced and the demand stimulated. Under the proposal the freight on coal by rail would be reduced by an amount of 2s. per ton. The owners would reduce the margin of profit by 1s. per ton, and the employees would accept rates of wages on an average about 8 per cent. below existing rates. The plan was rejected by the miners, and at the end of May, 1929, the Governments of the Commonwealth and of the State of New South Wales, acting in conjunction, appointed a Royal Commission to investigate the position of the coal industry and the causes which had led to that position.

In the course of a report presented at the end of March, 1930, the Commission reviewed comprehensively the condition of the coal industry in New South Wales and certain aspects of the coal industry of Australia, dealing extensively with such matters as coal reserves, mine methods, conservation of reserves, utilisation of coal, the economic value of coal, the efficiency of the industry, industrial relationships within the industry, wage rates and

earnings of employees, costs of production, profits and capitalisation, production, trade and marketing of coal and the over capacity of the industry. Each of these subjects received broad, as well as detailed consideration in the report, in the course of which a great deal of economic and statistical data relative to the industry are presented. The text of the report contains a considerable body of summarised statistics on each of the aspects of the industry, and in the appendices are contained many valuable tables illustrative of the development of the industry, as well as detailed analyses of the earnings of the employees and their production. The appendices also include reports of committees which were appointed to deal with the subjects of low temperature carbonisation, hydrogenation, and the utilisation of coal for the generation of electricity and gas and for railway purposes, besides summary of legislation governing the coal-mining industry abroad, and notes on various schemes of reorganisations.

After discussing fully the existing difficulties of the industry in New South Wales and various remedies which had been proposed, the Commission recommended that the industry should be placed under the control of a board of three members, consisting of a chairman of sound training and recognised tactfulness with the ability to weigh evidence, and of two colleagues of proved business ability, preferably having in addition, special qualifications in economics, engineering or accountancy. The functions and powers of this proposed board were enumerated and discussed in considerable detail. They included the fixation of the selling price of coal, the fixation of rates of wages, hours and conditions of employment, the licensing and de-licensing of mines and of employees therein, special powers to deal with strikes and lock-outs, the determination and imposition of a general levy on all coal raised, to provide for the compensation of proprietors of closed mines and for alleviation payments to former employees therein, the financing of research and industry welfare, and the payment of the expenses of the board. The appointment of a standing consultative committee and of subsidiary temporary committees of experts was also suggested in order that the board might be advised in respect of mining and treatment of coal and its products, the marketing of coal, health, education, industrial relations, and any other matters specified by the board. The Commission concluded its report with the following comments:—

“Attempts have been made in other countries to solve problems of a similar nature to those which exist in the coal industry of Australia at the present time. Many methods . . . have been tried, but with indifferent success, mainly, in the opinion of this Commission, because the remedies applied have not been sufficiently far-reaching. The scheme of re-organisation that has been outlined above will no doubt, be unpopular, and may appear to be unduly drastic in its incidence on all sections of the industry. But the conditions which have prevailed for so long a period in the coal-fields have convinced this Commission that it is futile to apply mere palliatives, and that no useful results of a lasting nature can be achieved without eradicating the basal causes of ever-recurring dislocations.

“In order to achieve this end many methods have been considered by this Commission, and in turn rejected as lacking the elements essential to success in Australian conditions. The Commission is convinced that the entire scheme put forward to re-organise the industry is not only practicable, but will be effective if put into operation in all its details, and that half measures will fail, as they have failed elsewhere.”

The Government has announced that it will give earnest consideration to the proposals of the Commission for the re-organisation of the Coal Industry.

The Northern collieries resumed operations on the 1st June, 1930, on substantially the basis proposed by the Government prior to the appointment

of the Commission. Railway freight charges were subsequently reduced and lower wages paid to the miners. The immediate result was evident in lower quotations in the price of coal.

In the course of its investigations the Commission obtained detailed returns from all the principal collieries of New South Wales, showing the name, occupation, net earnings, days worked, period employed, etc., of every person employed at each colliery during the year ended 30th June, 1928.

Extracts from several of the tables published in the Commission's Report are given here, as they touch upon aspects of the industry not covered by the annual returns obtained by the Statistician.

The Commission secured returns for 1927 and 1928 of sufficient detail to enable a tabulation to be made of the production costs, working expenses, colliery revenue, and gross profits or losses, and these are summarised in the following table, together with figures showing averages based on the tonnage available for sale:—

	Northern.		Southern.		Western.		Grand Total.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
Tonnage available for Sale...	6,381,677	5,466,331	1,951,779	1,568,926	982,591	614,231	9,316,047	7,649,488
Mine Wages and Salaries £	4,030,189	3,349,690	1,070,499	903,641	384,317	259,426	5,485,005	4,512,757
" " per ton	12s. 7-56d.	12s. 3-07d.	10s. 11-6d.	11s. 6-23d.	7s. 9-87d.	8s. 5-37d.	11s. 9-30d.	11s. 9-59d.
Workers' Compensation £	174,102	148,281	76,280	65,207	21,032	12,543	271,414	226,031
" " per ton	6-55d.	6-51d.	9-38d.	9-97d.	5-14d.	4-90d.	6-99d.	7-09d.
Royalties and Lease Rents £	156,213	138,107	53,914	47,755	15,533	11,858	226,660	197,720
" " per ton	5-87d.	6-06d.	6-63d.	7-31d.	3-79d.	4-63d.	5-81d.	6-20d.
Other Production Costs* £	777,652	671,437	272,203	205,497	65,626	43,141	1,115,481	920,075
" " per ton	2s. 5-25d.	2s. 5-48d.	2s. 9-47d.	2s. 7-44d.	1s. 4-03d.	1s. 4-86d.	2s. 4-74d.	2s. 4-87d.
Distribution (including Rail Freight) ... £	926,727	753,479	90,783	76,498	4,045	4,207	1,021,555	834,184
" " per ton	2s. 10-85d.	2s. 9-08d.	11-16d.	11-70d.	0-99d.	1-64d.	2s. 2-32d.	2s. 2-17d.
Administration ... £	122,936	115,878	54,190	55,858	17,407	14,997	194,533	186,733
" " per ton	4-61d.	5-09d.	6-66d.	8-54d.	4-22d.	5-86d.	5-01d.	5-86d.
Total Working Expenditure £	6,187,819	5,176,872	1,617,869	1,354,456	507,960	346,172	8,313,648	6,877,500
" " per ton	19s. 4-70d.	18s. 11-3d.	16s. 6-94d.	17s. 3-19d.	10s. 4-07d.	11s. 3-26d.	17s. 10-2d.	17s. 11-8d.
Coal Sales ... £	7,138,860	6,020,840	1,984,703	1,607,225	668,510	418,410	9,792,073	8,046,475
" " per ton	22s. 4-47d.	22s. 0-34d.	20s. 4-05d.	20s. 5-86d.	13s. 7-28d.	13s. 7-49d.	21s. 0-26d.	21s. 0-45d.
Other Colliery Revenue... £	53,492	58,435	25,566	25,304	5,927	8,218	84,985	91,957
" " per ton	2-01d.	2-57d.	3-14d.	3-87d.	1-45d.	3-21d.	2-19d.	2-89d.
Total Colliery Revenue £	7,192,352	6,079,275	2,010,269	1,632,529	674,437	426,628	9,877,058	8,138,432
" " per ton	22s. 6-48d.	22s. 2-91d.	20s. 7-19d.	20s. 9-73d.	13s. 8-73d.	13s. 10-7d.	21s. 2-45d.	21s. 3-84d.
Profit ** ... £	1,004,533	902,403	392,400	278,073	166,477	80,456	1,563,410	1,260,932
" " per ton	3s. 1-77d.	3s. 3-62d.	4s. 0-25d.	3s. 6-54d.	3s. 4-66d.	2s. 7-44d.	3s. 4-27d.	3s. 3-56d.
Interest on Borrowed Capital † ... £	12,813	13,131	8,322	8,427	418	256	21,553	21,814
" " per ton	0-48d.	0-57d.	1-02d.	1-29d.	9-1d.	0-1d.	0-55d.	0-68d.
Income Tax ... £	168,978	196,692	67,377	50,394	30,471	15,478	266,826	262,564
" " per ton	6-35d.	8-64d.	8-28d.	7-71d.	7-44d.	6-05d.	8-86d.	8-24d.
Depreciation ... £	192,705	202,678	35,839	37,675	9,288	10,219	237,832	250,572
" " per ton	7-25d.	8-90d.	4-41d.	5-76d.	2-27d.	3-99d.	6-13d.	7-86d.
Net Profit ... £	630,037	489,902	280,862	181,577	126,300	54,503	1,037,199	725,982
" " per ton	1s. 11-69d.	1s. 9-51d.	2s. 10-54d.	2s. 3-78d.	2s. 6-85d.	1s. 9-30d.	2s. 2-72d.	1s. 10-78d.

* Includes stores and materials, repairs, family endowment payments, freight and cartage (inwards), rates, land tax, fire insurance, and sundry items.

** Before charging Income Tax, Depreciation, and Interest on borrowed capital in excess of investments, if any.

† In excess of investments, if any.

From the compilation of this table have been excluded figures relating to certain collieries owned by interests primarily established for purposes such as the manufacture of iron or steel or cement, as in such cases the selling price of coal to the other branch of the business is much lower than that charged by collieries to outside consumers, and the cost of production of coal and the costs of other services of the enterprise are not separable.

The State Coal Mine and Balmain Colliery were also excluded, as each operates under conditions not strictly comparable with the majority of

collieries. Levies or amounts paid to proprietors' organisations for industrial or protective purposes were not included in the costs of mines concerned, as such payments made to the Northern Collieries' Association were not included in the accounts of its members as considered by the Commission, and their inclusion in the case of Southern and Western mines would have vitiated the comparison.

The following particulars, taken from the report, show the average earnings of the various classes of employees other than salaried staff during the year ended 30th June, 1928:—

District.	Average nett earnings per day worked.	Average nett earnings per fortnight employed.	Average total pay per fortnight employed.	Average annual rate of pay.	Average number of days worked per fortnight employed.
Miners, Machinememen, Shooters and Fillers.					
	£ s. d.	£ s. d.	£ s. d.	£	
Northern ...	1 17 10	11 17 3	12 5 2	319	6.3
Southern ...	1 8 0	8 8 9	8 19 7	233	6.0
Western ...	1 12 1	11 14 10	12 0 4	312	7.3
Total, N.S.W.	1 15 0	11 2 5	11 10 8	300	6.4
Other Underground Workers (excluding staff and boys).					
	£ s. d.	£ s. d.	£ s. d.	£	
Northern ...	1 2 6	9 3 4	9 17 5	257	8.1
Southern ...	1 1 0	8 10 11	8 18 7	232	8.3
Western ...	1 2 0	10 5 9	11 2 11	290	9.4
Total, N.S.W.	1 2 4	9 3 5	9 16 8	256	8.2
Workers above Ground (excluding staff and boys).					
	£ s. d.	£ s. d.	£ s. d.	£	
Northern ...	0 19 2	8 16 0	9 12 2	250	9.2
Southern ...	0 19 3	9 12 7	9 18 2	258	9.6
Western ...	1 0 7	10 7 9	11 4 1	291	10.1
Total, N.S.W.	0 19 4	9 1 6	9 15 9	254	9.3

These figures were given with minor qualifications, but they provide a broad view of the distribution of wages and show that the miners on the northern and western fields earned comparatively high wages while the southern average was low. The year 1927-28 was a period of unprecedented intermittency, and several mines were not working. The average annual earnings as shown above were therefore lower than in a normal year. Taking into consideration employees who were engaged for at least twenty-five fortnights the following particulars were compiled, according to the total amount of pay received during the year. Salaried staffs and boys are again excluded, and the amount of pay includes overtime and workers' compensation, but excludes amounts paid by miners for explosives. Approximately 85 per cent. of mine workers of the State were considered.

Total pay for year 1927-28.	Miners, Machinememen, and Brushers.	Wheelers		Other men employed underground.	Men employed above ground.	Total.
		On contract.	On wages.			
Under £221 ...	1,098	226	254	1,099	954	3,631
£221-£259 ...	1,121	162	99	575	565	2,522
£260-£311 ...	1,067	110	47	588	686	2,498
£312-£363 ...	674	56	36	509	403	1,678
£364-£415 ...	480	43	6	244	156	929
£416-£467 ...	421	20	.....	90	111	642
£468-£519 ...	393	1	.....	53	43	490
£520 and over ...	158	.....	.....	6	.....	164
Totals	5,412	618	442	3,164	2,918	12,554

Slightly more than one-fifth of the miners employed for the full year received less than the basic wage under State awards, while a majority of the wheelers received less than the basic wage, although the latter could have earned from 15 to 20 per cent. above that wage had they worked full time.

Of the total men employed above and below ground, about one-third earned less than the basic wage and about one-half averaged £5 or more per week. The higher paid employees included deputies, who are in many instances considered as staff men, workers on contract, and others who received large sums as overtime, as well as engine-drivers and firemen.

Investigations by the Commission into the question of time worked in coal mines showed that intermittency has seriously increased since 1922, and has now become an important problem. Eleven shifts are usually worked per fortnight, as on the day following the fortnightly pay Friday no work is done. On that basis, and allowing for holidays, it is possible for a mine to work 274 days, but only on rare occasions is this total reached. The weighted average number of days worked in each district at intervals since 1913 is shown in the following table:—

Year.	Northern.	Southern.	Western.	Total.
	days.	days.	days.	days.
1913	234	227	261	233
1917	201	207	221	204
1921	221	234	217	223
1925	197	194	257	202
1926	182	184	226	187
1927	175	203	229	187
1928	159	175	209	168

The comparatively high average in the western mines is accounted for by the fact that the large State colliery and other collieries supplying the cement-making industry work practically full time. It was found that the greatest number of days was worked in 1912, 1913, and 1914 in which years wages and prices were much lower than in war years and subsequently.

The output of coal per day was found to be approximately 2½ tons for all employees, and about 3¼ tons for workers below ground only. The highest average is in the western mines and the lowest in the southern. The following table shows the approximate average output per shift worked, but as the report points out the noticeable fluctuations from year to year do not necessarily indicate variations in efficiency. Allowances must be made, especially in the case of the northern and western seams, for the continual changes occurring through the closure of old mines and the opening of new mines, with varying efficiency and the increasing age of the workings. Despite the installation of better machinery during recent years the production per man has not increased.

Years.	Below Ground.				All Employees.			
	Northern.	Southern.	Western.	Total.	Northern.	Southern.	Western.	Total.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1913	3.25	2.75	4.01	3.18	2.44	2.19	3.29	2.41
1917	3.36	2.88	4.29	3.33	2.46	2.20	3.56	2.50
1921	3.17	2.69	4.62	3.17	2.34	2.00	3.74	2.36
1925	3.25	2.86	3.55	3.21	2.42	2.12	2.76	2.41
1926	3.25	2.75	3.72	3.20	2.41	2.08	2.90	2.40
1927	3.34	2.78	3.77	3.27	2.50	2.14	2.94	2.48
1928†	3.37	3.01	3.91	3.38	2.39	2.19	3.08	2.44

† Year ended 30th June.

Full particulars are not available as to the purposes for which coal is used locally, but statistics of factories and railways with those of the export trade contain information which covers all but a small proportion of the total production. The following statement shows these details for the last six years, though they differ from those shown in other tables insofar as they refer to periods of twelve months ending June, and not to calendar years:—

Coal Used.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
In Factories—	tons.	tons.	tons.	tons.	tons.	tons.
Fuel in Electricity Works ...	699,472	747,310	782,409	856,997	916,344	882,355
„ Other Factories ...	1,242,548	1,300,513	1,333,387	1,396,090	1,324,477	1,318,880
	1,942,020	2,047,823	2,115,796	2,253,087	2,240,821	2,201,235
Raw Material in Gas Works ...	593,844	611,477	605,488	620,640	637,646	661,878
„ Coke Works ...	876,581	1,041,661	890,444	1,060,368	896,877	869,257
	1,470,425	1,653,138	1,495,932	1,681,008	1,534,523	1,531,135
Total in Factories ...	3,412,445	3,700,961	3,611,728	3,934,095	3,775,344	3,732,370
On Railways for Locomotive Purposes ...	1,150,256	1,263,176	1,342,286	1,342,034	1,267,828	1,212,272
Total, Factories and Railways...	4,562,701	4,964,137	4,954,008	5,276,129	5,043,167	4,944,642
Exports—						
Interstate*—Cargo ...	2,611,239	2,701,800	2,132,173	2,505,174	2,268,048	1,520,436
„ Bunker† ...	383,302	404,531	405,223	410,062	300,830	342,666
Total, Interstate ...	2,994,541	3,106,331	2,537,396	2,915,236	2,568,878	1,863,102
Overseas—Cargo ...	1,356,483	974,704	792,144	803,254	546,075	311,608
„ Bunker ...	1,147,530	953,246	882,446	899,413	841,227	645,266
Total, Overseas ...	2,484,013	1,927,950	1,674,590	1,702,667	1,387,302	956,874
Total Exports† ...	5,478,554	5,034,281	4,211,986	4,617,903	3,956,180	2,819,976
Total, Factories, Railways and Exports† ...	10,041,255	9,998,418	9,165,994	9,894,032	8,999,347	7,764,618

* Approximate.

† Excluding bunker coal shipped on interstate vessels in Sydney Harbour which amounted to £135,554 in 1928-29.

The quantity of coal used as fuel in factories has risen by nearly 41 per cent. since 1922-23, with a general expansion of the secondary industries, the increasing requirements of the electric light and power works being an important factor. The demand for coal as raw material in gasworks has been steady. The quantity used in coke works has fluctuated, and in 1927-28 it was 61 per cent. greater than in 1922-23 though much lower than in 1926-27. The 1928-9 consumption was the greatest on record, but was partly accounted for by the inferior quality of gasmaking coal available owing to the stoppage of the northern mines during part of the year. The quantity consumed by railway locomotives did not increase in 1926-27, though the traffic in that year was unusually heavy. A decline in 1927-28 was due partly to the electrification of some of the railway services, economy in the use of coal for steam engines, and to a reduction in goods traffic. The export trade is dwindling by reason of a diminution in the demand due to such causes as the substitution of oil.

On the average it appears that local factories absorb about 38 per cent. of the output, the railways approximately 13 per cent., and the export trade about 40 per cent.

OIL SHALE.

Oil-bearing mineral, which is a variety of torbanite or cannel coal, known locally as kerosene shale, has been found in many localities in New South

Wales, the most important deposits being in the Capertee and Wolgan Valleys.

The production of oil shale, from the opening of the mines in 1865 to the end of 1924 amounted to 1,919,685 tons, valued at £2,690,710. There was no commercial production during the last five years.

In the years 1910-1913 the Commonwealth Government paid a bounty on kerosene and paraffin wax made from Australian shale, and since 1917 has provided a bounty on crude shale oil. The last payments were made during the year ended 30th June, 1925, when they amounted to £335.

DIAMONDS.

Diamonds and other gem-stones are distributed widely in New South Wales, but an extensive field has not been discovered. The finest of the New South Wales diamonds are harder and whiter than the South African, and are equal to the best Brazilian gems.

The following table shows the output of diamonds as recorded, but it is probable that the actual output was much greater. The majority of the diamonds have been obtained from the mines in the Bingara and Copeton districts.

Period.	Carats.	Value.	Period.	Carats.	Value.
		£			£
1867-1900	100,103	55,535	1926	64	77
1901-1905	54,206	46,434	1927	199	227
1906-1910	16,651	12,374	1928	28	60
1911-1915	16,003	13,353	1929	119	148
1916-1920	11,973	12,573			
1921-1925	3,232	4,183	Total ...	202,578	144,964

OPAL.

Precious opal occurs in two geological formations in New South Wales, viz., in tertiary vesicular basalt and in the upper cretaceous sediments. The most important deposits are in the upper cretaceous rocks at White Cliffs and Lightning Ridge. Gems from the latter field are remarkable for colour, fire, and brilliancy. The opals from vesicles in the tertiary basalt at Tintenbar in the North Coast division resemble the Mexican gems.

The following table shows the estimated value of precious opal won in New South Wales to the end of 1929:—

Period.	Value.	Period.	Value.
	£		£
1890-1900	456,599	1926	11,485
1901-1905	476,000	1927	13,353
1906-1910	305,300	1928	11,000
1911-1915	154,738	1929	6,071
1916-1920	105,547		
1921-1925	51,740	Total ...	1,591,833

The output of opal was greatest during the five years ended 1903, and since that period the annual average has declined from £115,000 to less than £7,000.

ALUNITE.

Alunite, or alumstone, occurs at Bullahdelah, about 35 miles from Port Stephens, in a narrow mountain range which for more than a mile is composed mainly of alunite, of greater or less purity. Owing to the nature of the occurrences, it has not been possible to estimate the ore reserves of commercial value. Four varieties of alunite are recognised at the mines, but operations are confined mainly to the light-pink ore, the average yield being about 80 per cent. of alum.

In 1926 the production of alunite was 580 tons, valued at £2,320, and the quantity exported since 1890 was 58,189 tons, valued at £208,795. There was no production during the last three years.

OTHER MINERALS.

Marble.—Beds of marble of great variety of colouring and with highly ornamental markings, are located in many districts of New South Wales. Much of the marble is eminently suitable for decorative work.

Limestone.—Immense supplies of limestone are distributed widely throughout the State. The commercial value of the deposits depends mainly on their accessibility and proximity to market. The bulk of the limestone is raised for the manufacture of cement in localities where coal and shale also are readily available.

Fireclays.—Fireclays of good quality are found in the permo-carboniferous coal measures, and excellent clays for brick-making, pottery, etc., may be obtained in the State, chiefly in Sydney and Wollongong districts.

Magnesite.—Magnesite is distributed widely, but few deposits are of commercial value. Large quantities have been mined at Fifield, Attunga, and Barraba. The output during 1929 was 8,953 tons, valued at £14,161.

Diatomaceous earth occurs in several localities. The principal deposits are situated at Cooma, Barraba, Coonabarabran, and Wyrallah.

Other Mineral Deposits.—Other mineral deposits known to exist but not worked extensively include asbestos, barytes, fluorspar, Fuller's earth, ochre, graphite, gypsum, slate, and mica. Quartzite for the manufacture of silica brick is obtainable in large quantities.

QUARRIES.

The Hawkesbury formation in the Metropolitan district provides excellent sandstone for architectural use. The supply is very extensive, and the stone is finely grained, durable, and easily worked. In the north-western portion of the State and in the northern coal districts good building stone is obtainable.

Syenite, commonly called trachyte, is found at Bowral. For building purposes it is solid, and takes a beautiful polish. Granite occurs at many places in the State, and it has been obtained generally in places near the coast, whence it could be transported cheaply.

Basalt or blue metal, suitable for ballasting roads and railway lines and for making concrete, is obtained at Kiama and other localities.

The following statement shows the output of the quarries and clay, gravel and sand pits during the years 1928 and 1929, as recorded in returns collected from the owners by the Statistician under the Census Act of 1901.

Stone, etc.	1928.		1929.	
	Quantity.	Value.	Quantity.	Value.
Building Stone—	tons.	£	tons.	£
Sandstone	40,269	43,244	47,620	52,601
Granite	13,836	47,809	8,245	31,129
Basalt	45,444	16,826	24,016	10,793
Trachyte, etc.	805	3,220	4,139	6,367
Limestone	22,543	14,063	2,644	1,494
Marble	4,293	6,487	528	3,004
Slate	294	3,563	109	970
Other	32	24	226	247
Macadam, Ballast, etc.—				
Sandstone	214,073	66,627	502,369	138,463
Granite	153,914	67,116	29,388	8,152
Bluestone, Basalt, etc. ...	1,562,789	461,936	1,567,731	424,940
Quartzite	124,850	46,628	40,927	13,633
Limestone	20,150	4,543	19,329	4,938
Gravel	897,188	168,074	831,494	139,336
Sand	391,459	59,362	361,947	53,518
Shale	122,108	19,644	26,798	3,690
Chert	2,636	793	24,527	4,793
Slate	5,350	802	1,382	69
Ironstone	5,330	1,027	.....	.....
Andesite	15,000	5,837	59,278	16,802
Other... ..	58,579	14,517	5,025	2,154
Limestone—				
For Cement	456,949	104,619	546,856	125,822
For Burning	147,958	33,308	82,112	22,610
For Flux	26,910	6,345	70,519	16,161
Shale for Cement... ..	105,888	18,515	167,285	29,214
Clays—				
Brick	1,619,117	230,495	1,724,102	212,456
Pottery and Earthenware ...	115,818	29,932	114,134	30,206
Pigment	129	179	154	213
Kaolin	2,360	2,640	3,558	6,032
Fire Clay	29,108	7,092	35,654	9,949
Silica	36,449	11,364	10,954	4,099
Other... ..	27,008	3,451	.....	.....
Total	£6,268,636	£1,500,082	6,313,050	£1,373,855

INSPECTION OF MINES.

The inspection of mines with a view to safeguarding the miners from accident and disease is conducted by salaried officers of the Department of Mines in terms of the Coal Mines Regulation Acts, which apply to coal and shale mines, and the Mines Inspection Acts, which apply to other mines.

The Coal Mines Regulation Acts prescribe that every coal mine must be under the control and direction of a qualified manager, and daily personal supervision must be exercised by him or by a qualified under-manager. In mines where safety-lamps are used a competent person must be appointed as deputy to carry out duties for the safety of the mine, especially in regard to the presence of gas, the sufficiency of ventilation, the state of the roof and sides, and the supervision of shot-firers.

The Acts contain general rules for the working of coal mines in regard to such matters as ventilation, sanitation, the inspection and safeguarding of machinery, safety lamps, explosives, security of shafts, etc. It is provided that a person may not be employed in getting coal or shale in the face of the workings of a mine unless he has had two years experience or works in company with an experienced miner. Special rules are established in each mine for the safety, convenience, and discipline of the employees.

A Royal Commission, appointed in July, 1925, conducted an inquiry into conditions operating in the coal mines of New South Wales, with special reference to ventilation, the presence of gas, and the use of safety lamps. As a result of its recommendations the Coal Mines Regulation Act was amended with the object of minimising the risks attached to this class of mining, and Courts of Coal Mines Regulations may be constituted to determine matters relating to the safe working of the coal mines. The Governor may appoint a District Court judge, a stipendiary or police magistrate, or a mining warden to sit as a Court. Courts have been proclaimed at East Maitland, Newcastle, Muswellbrook, Gunnedah, Sydney, Wollongong, Lithgow, and Mudgee.

The Mines Rescue Act, 1925, makes provision for rescue operations in coal and shale mines by the establishment of rescue stations, rescue corps, and rescue brigades. In four districts, viz., the Western, Southern, Newcastle, and Maitland, central rescue stations have been established, and the mine owners in each district are required to contribute to a fund for their upkeep. The rates of contribution for the year 1929, as prescribed by regulations, were as follows:—Western 3d.; Southern 0.3d.; Newcastle 0.827d.; and Maitland 0.246d. per ton of coal and shale raised during the preceding year. The amount contributed during 1929 was £17,598.

In the mines, to which the Mines Inspection Acts relate, a qualified manager, exercising daily personal supervision, must be appointed if more than ten persons are employed below ground, and the machinery must be in charge of a competent engine-driver. General rules are contained in the Act, and the inspectors may require special rules to be constituted for certain mines.

Certificates of competency to act in mines as managers, under-managers, deputies, engine-drivers, and electricians are issued in accordance with the Acts relating to inspection.

Particulars regarding the persons killed or seriously injured in mining accidents during the last nine years are shown below:—

Year.	Accidents.				Per 1,000 Employed.			
	Coal and Shale Miners.		Other Miners.		Coal and Shale Miners.		Other Miners.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1921	19	113	4	22	·89	5·31	·47	2·61
1922	12	86	5	25	·55	3·97	·54	2·70
1923	31	101	6	48	1·35	4·39	·62	4·94
1924	27	80	10	53	1·17	3·47	·98	5·22
1925	27	115	10	65	1·12	4·78	·76	4·93
1926	25	102	20	60	1·01	4·12	1·27	3·82
1927	24	107	11	58	·98	4·37	·81	4·26
1928	14	103	12	60	·65	4·80	·99	4·94
1929	12	89	10	55	·53	3·96	·82	4·51

The accident rates are not based on the number of employees as shown on page . They relate to the total number of persons who are subject to the provisions of the Mining Acts, including persons engaged in connection with treatment plant at the mines, and in quarries held under mining titles. The particulars relating to all quarries are included in the figures for the years 1925 to 1929 inclusive.

Allowances paid during 1929 to beneficiaries under the provisions of the Miners' Accident Relief Act amounted to £21,731. The beneficiaries at the end of the year were: widows, 261; mothers, 28; sisters, 5; permanently disabled persons, 222; and children, 88.

In the chapter relating to Industrial Arbitration, particulars are given regarding industrial diseases in mines and the compensation provided in cases of accident or illness.

SOCIAL CONDITION.

THE social condition of the people of New South Wales, judged from the standpoint of health and living conditions, compares favourably with that of any other part of the world. The climate is salubrious with abundant sunshine, and sufficient food is produced to supply the whole community. Wages, hours of labour, and other industrial conditions are regulated with the object of preserving the health of the workers and of enabling even the lowest paid employee to maintain a family according to a fairly comfortable standard of living. Family allowances are paid for the benefit of dependent children in families with small incomes, and provision is made to safeguard the welfare of juveniles and of women in industrial occupations. During the current year an unusual degree of unemployment developed rapidly as a result of economic causes mainly world-wide in effect. The central and local governing bodies and private organisations have been active in undertaking relief works, and a special tax has been levied on wages and other income for this purpose.

The system of government is based on a broad franchise which embraces every adult citizen. The legal system is based on principles which give equal status to all citizens, the land laws are designed to promote a healthy growth of rural settlement. The railways, being owned by the State, are used to develop national resources, and the tariff laws aim at the extension of local industries without any encroachment upon existing standards of industrial employment. Legal restrictions have been placed upon gambling, and upon the manufacture and sale of intoxicating liquors and deleterious drugs, in order to minimise the social evils attendant upon poverty and drunkenness. Education is free at both primary and secondary public schools.

The mildness of the climate enables the people to engage in outdoor recreation at all times of the year. Measures for the prevention of sickness and the encouragement of hygienic conditions of life find their reflex in low death rates, in the decreasing incidence of preventable diseases, and in the absence of certain endemic diseases, such as typhus. For persons who need special treatment, on account of sickness, etc., hospitals and other institutions have been established, and pensions are paid to the aged and infirm and to widows with dependent children.

HOSPITALS AND CHARITIES.

PUBLIC HEALTH SERVICES.

The principal State services in relation to public health in New South Wales are organised as the Department of Public Health under the control of a Minister of the Crown. The department includes two branches, one directed by the Board of Health and the other by the Director-General of Public Health. Their functions, though distinct, are closely co-ordinated, and the Director-General, who is a medical practitioner and a permanent salaried officer of the Government, is *ex officio* President of the Board of Health. The Board consists of ten members, including five legally qualified medical practitioners, all being nominated by the Government. It is the executive and administrative authority in connection with the health laws. It acts in an advisory capacity towards the Minister for Public Health and the Government, and exercises general supervision in regard to public health matters. The Director-General of Public Health controls the State medical services and the State institutions for the treatment of the sick and infirm, and a microbiological laboratory.

Other Government departments administer measures in connection with public welfare, charitable relief, and the medical inspection of school children, and a special department has been organised for the care of children.

The executive personnel of the Department of Public Health includes medical officers and sanitary inspectors. The former are appointed by the Government, and are permanent salaried officers, who devote the whole of their time to matters relating to public health.

It was intended that all the more densely-populated districts should be placed under the supervision of medical officers, but up to the present they have been appointed only in the Metropolitan area, in the Hunter River district, which includes Newcastle, and in Broken Hill. Outside these areas expert advice may be obtained from medical officers attached to the central staff of the Public Health Department, who visit localities when required. In every town a local medical practitioner is appointed as a Government medical officer for the purpose of attending to Government medical work, *e.g.*, inquests, sickness in gaols, etc.; they have no regular duties nor special legal powers, and are paid in fees for services rendered.

In the Department of Public Health the principal activities are organised in special divisions, *e.g.*, industrial hygiene, maternal and baby welfare, tuberculosis, laboratories, sanitation, and pure food, each in charge of a specially-qualified officer. The medical officers of the Department act also as medical referees in regard to claims under the Workers' Compensation Act.

The most important legislative enactments relating to public health are the Public Health Act, dealing with public health and sanitation; Acts relating to dairies supervision, noxious trades, diseased animals and meat, pure food, and to hospitals; and provisions of the Local Government Act which specify the powers and duties of the municipal and shire councils for safeguarding health in the incorporated areas. The authorities are empowered to take steps to prevent the spread of infectious diseases, to regulate the erection of dwellings, and to order the demolition or improvement of insanitary buildings, to prohibit the manufacture or distribution of unwholesome or adulterated foods and drugs, (with special powers in relation to milk and meat) to regulate the conduct of noxious trades, to deal with nuisances, etc. Control of sanitation by means of by-laws and regulations is the method adopted generally, as being readily adaptable to the varying conditions of a widely-scattered community.

Executive duties in relation to public health devolve primarily upon the local authorities, who carry out the functions under supervision of the Board of Health as the central controlling authority. Within municipalities the duties are undertaken by the local councils, and outside municipal areas they are performed either by the shire councils or by persons or bodies specially appointed for the purpose.

In addition to the organisation under the control of the State Government there is a Federal Department of Public Health, which discharges important functions in regard to quarantine, industrial hygiene, etc., and conducts research relating to causes of diseases and of deaths, and to methods of prevention and cure.

A Federal Health Council was constituted in November, 1926, to advise the Commonwealth and State Governments on health questions generally and to devise measures for co-operation and for promoting uniformity in legislation and administration. The membership includes the principal

health officers of each State, with the Federal Director-General of Health as chairman. A conference was held between the Council and the Statisticians of the Commonwealth and of the States in March, 1928, for the purpose of discussing methods for improving the existing systems of collecting and compiling statistics of morbidity and mortality. At its second session following the conference the Council adopted a number of resolutions regarding these matters.

Government Expenditure on Charitable Relief.

The expenditure from public revenue on eleemosynary objects in New South Wales includes the expenditure from Consolidated Revenue on hospitals and charitable relief which covers the cost of maintenance of the State institutions, and subsidies granted to other institutions, the subvention to friendly societies and pensions to widows which are paid by the State Government, and the old-age and invalidity pensions and maternity allowances provided by the Commonwealth Government. The expenditure in 1928-29 amounted to £7,649,267, or £3 2s. 6d. per head. A classification of the items is shown below in comparison with the expenditure in 1911-12 and in 1921-22. Expenditure in connection with the medical inspection of school children is not included, nor expenditure from the public works and loan funds which amounted to £406,402 in 1928-29, nor costs of administration, except in regard to the Child Welfare Department, the mental hospitals, and the protection of aboriginals.

Head of Expenditure from Consolidated Revenue.	1911-12.	1921-22.	1927-28.	1928-29.
	£	£	£	£
General Hospitals and Charitable Institutions	130,368	511,971	774,182	761,073
Mental Hospitals	212,616	537,096	672,344	703,584
Child Welfare	106,557	472,268	554,475	546,265
Government Asylums for the Infirm	87,708	164,679	191,426	215,922
Charitable Relief, Medical Services, etc.	36,905	175,266	190,950	542,592
Aborigines' Protection	16,475	22,506	27,856	31,011
Subvention to Friendly Societies	14,000	56,801	62,723	67,306
Widows' Pensions	...	...	608,808	637,551
Miscellaneous	2,401	22,117	4,950	4,448
State	607,030	1,962,704	3,087,714	3,509,752
Old-age and Invalid Pensions	821,993	2,029,077	3,819,182	3,868,140
Maternity Allowances	...	277,065	275,360	271,375
Commonwealth	821,993	2,306,142	4,094,542	4,139,515
Total	£ 1,429,023	4,268,846	7,182,256	7,649,267
Expenditure per head of Population—	£ s. d.	£ s. d.	£ s. d.	£ s. d.
State	0 7 2	0 18 5	1 5 9	1 8 8
Commonwealth	0 9 8	1 1 8	1 14 1	1 13 10
Total	£ 0 16 10	2 0 1	2 19 10	3 2 6

The expenditure in 1928-29 was more than five times the amount spent in 1911-12. The cost to the State increased from 7s. 2d. per head of population to 28s. 8d., and to the Commonwealth from 9s. 8d. to 33s. 10d.

The expenditure in 1929-30 amounted to £8,109,965, of which £3,776,512 or 30s. 6d. per head, were expended by the State and £4,333,453, or 35s. per head, by the Commonwealth.

TREATMENT OF SICKNESS.

Institutions for the treatment of sickness and disease have been established in various localities throughout the State. There are private hospitals which are owned by private persons and conducted as business enterprises; public hospitals which are maintained by the State, or by the people resident in the districts in which the hospitals are located, with the assistance of subsidy from the public funds, or by charitable organisations; special hospitals, State and private, for the treatment of mental and nervous ailments; and a State lazaret for the segregation of persons afflicted with leprosy.

The State exercises a measure of supervision over the practice of professional persons engaged in the treatment of sickness and disease, and medical practitioners, dentists, and pharmacists are required to register with a board established for each profession under statutory authority. At the end of the year 1929 there were on the registers 3,124 medical practitioners, 1,416 dentists, and 1,843 pharmacists. There were in addition 381 dealers in poisons, and 7 persons were licensed, under an Act relating to drugs, to manufacture and 11 to distribute opium and other dangerous drugs.

Nurses also are required to register in terms of the Nurses Registration Act, 1924. Four classes of nurses may be registered, viz., general, mental, midwifery, and infants. In the case of midwifery nurses, registration must be renewed annually. The Registration Board may suspend nurses temporarily from practice in order to prevent the spread of infection and may pay compensation to midwifery nurses suspended for that reason. The number of registrations at 31st December, 1929, was as follows:—General nurses 5,264, midwifery 3,511, mental 762, infants 58. Information is not available as to the total number of nurses as many are registered under more than one classification.

Special efforts are made to provide for the treatment of sickness and accident in sparsely populated districts. The Government subsidises medical practitioners with a view to encouraging them to practise in outlying bush settlements. Usually the subsidy is the amount necessary to bring their earnings to a certain sum.

The Bush Nursing Association appoints nurses in country localities. The nurse in each district works under the supervision of a local committee, who pay expenses and fix charges for her services, etc., persons in necessitous circumstances being exempt from the payment of fees. Similar provision is made by the Country Women's Association, and both these organisations have arranged for the maintenance of cottage homes in a number of remote localities. The cottages serve as residences for the nurses and as accommodation for patients in cases of emergency.

Private Hospitals.

A private hospital may not be conducted except under license in accordance with the Private Hospitals Act of 1903, as amended by the Nurses Registration Act, 1924. The legislation applies to all establishments in which a charge is made for treatment, except those maintained or subsidised by the State or licensed under the Lunacy Act or the Inebriates Act. The licenses are issued annually by the Minister for Public Health on the recommendation of the Board of Health, and it is prescribed that every private hospital must be under the direct control of a person approved by the Board. Licensees are required to comply with regulations as to structure, management, and inspection.

At 31st December, 1929, the private hospitals numbered 659, viz., 285 in the metropolitan district and 374 in the country. The classification of the hospitals and their accommodation, according to the nature of the cases received, are shown in the following statement:—

District.	Private Hospitals.				Number of Beds.			
	Medical, Surgical, and Lying-in.	Medical and Surgical.	Lying-in.	Total.	Medical, Surgical, and Lying-in.	Medical and Surgical.	Lying-in.	Total.
Sydney	No. 91	No. 34	No. 160	No. 285	No. 1,863	No. 602	No. 678	No. 3,148
Country	159	15	239	374	1,409	185	842	2,436
Total	241	49	369	659	3,277	787	1,520	5,584

There has been an increase of 216 in the number of private hospitals since 1911, when there were 114 in Sydney and 329 in the country. In 509 hospitals the accommodation at the end of 1929 did not exceed 10 beds, 103 had from 11 to 20 beds, and 47 hospitals had over 20 beds.

Public Hospitals.

Institutions for the care of the sick are classed as public hospitals, unless they are owned and maintained entirely by private persons. Some are maintained wholly by the State, those in the metropolitan district being the Coast Hospital, with a branch at the Prince Edward (Military) Hospital, for medical, surgical, and infectious cases, the Lady Edeline Hospital for babies, two convalescent hospitals, and a number of institutions for maternity cases. There are two State institutions in the country, viz., the Waterfall Hospital for Consumptives and the David Berry Hospital at Berry for general treatment. Some of the public hospitals are under the regis of religious denominations, and are conducted by religious communities who own the establishments or by committees nominated by subscribers. They are open to persons of all creeds, and the majority of them receive a small subsidy from the State.

The Public Hospitals Act of 1898 and an amending Act passed in 1900 defined the procedure for the election of officers for the management of the institutions.

In 1929 this Act was replaced by a new law, which is designed with the object of a systematic organisation of the hospital services. The Hospitals Commission of five members has been appointed to administer the Act. The Chairman is a full-time officer, appointed for a term of five years at a salary of £1,500 per annum. The other members are remunerated by fees, viz., a medical practitioner; one member representing the hospitals within the county of Cumberland, and another the hospitals outside the county; and a woman.

The public hospitals are classified in two main groups. One group termed the "incorporated hospitals" consists entirely of suburban and country general hospitals incorporated by the Act. The second group, known as "separate institutions," includes the large general hospitals in or around the metropolis; the Newcastle hospital; the hospitals for women, children, tubercular cases, convalescents, or incurables; the dental hospital; the hospitals conducted by religious organisations; and a few country hospitals.

Each incorporated hospital is managed by a board of directors elected annually by the subscribers, power being reserved to the Governor, on

recommendation of the Commission, to appoint any or all the directors of a hospital or to remove them from office and place the hospital under the management of the Commission, or a person nominated by the Commission. A person who contributes, otherwise than by way of payment for relief, an amount of at least ten shillings in one sum is deemed to be a subscriber for the year in which his subscription is paid; also persons nominated by firms or associations who contributed to the funds of the hospital, the number of nominees being fixed according to the amount contributed. Persons who render meritorious service to a hospital or contribute £10 in one sum may become life members.

It is the duty of the Hospitals Commission to inspect the hospitals which receive or apply for subsidy, to report to the Government as to the amount of State aid required to meet the needs of the hospitals, to determine which hospital shall be subsidised, and the amount of subsidy to be paid to each institution. Under certain conditions the Commission may exercise special powers to close or amalgamate incorporated hospitals with a view to effective and economical administration, or to authorise the board of a hospital to provide accommodation for the treatment of infectious diseases, or convalescent or incurable cases, or to define the functions and activities of a hospital. Moneys appropriated by Parliament for the assistance of hospitals are paid into the Hospital Fund administered by the Commission.

The Act defines the liability of patients to pay a reasonable sum for the cost of hospital services, and such sum is recoverable in the courts of law, though destitute persons may not be refused relief by reason only of inability to pay therefor. On the authority of the Commission portion of a hospital may be set aside for paying patients, who may contract for private or intermediate accommodation.

The figures shown in the following tables relating to public hospitals do not include particulars relating to institutions used exclusively for soldiers and sailors, nor of the following State institutions, viz., the convalescent hospitals (two in number), a maternity hospital, the leper lazaret, and the three asylum hospitals. Excluding those institutions there were 166 public hospitals in New South Wales at the end of 1929, viz., 31 in the metropolitan district, with 5,157 beds, and 135 in the country, with 5,284 beds. The hospitals in the metropolitan district included 18 general hospitals, with 3,682 beds; 3 hospitals for children, 464 beds; 5 for women, 738 beds; 3 for incurable cases, 197 beds; 1 institution for convalescents, 76 beds; and a dental hospital. All the hospitals in the country provided general treatment, except 4 for consumptives, 554 beds, and 1 for convalescents, 110 beds.

The extent to which the hospital services have increased since 1901 is shown below:—

Year.	Public Hospitals.			Beds.		
	Metro-politan.	Country.	Total.	Metro-politan.	Country.	Total.
1901	15	103	118	1,453	1,938	3,391
1911	21	120	141	2,113	2,976	5,089
1921	26	128	154	3,841	4,234	8,075
1926	27	134	161	4,515	4,959	9,474
1927	27	138	165	4,625	5,323	9,947
1928	27	138	165	4,617	5,244	9,861
1929	31	135	166	5,157	5,284	10,441

The figures show a remarkable expansion in regard to hospital accommodation, the tendency being to enlarge existing institutions rather than

to establish new hospitals. One new hospital was opened in the metropolitan district in 1929 and three previously classified with country hospitals are within boundaries of five municipalities which were added to the metropolitan area as from 1st January, 1929. The average number of beds per hospital in 1929 was 63, as compared with 29 in 1901. The accommodation as stated includes beds in the open air, which numbered 1,453 in 1929.

The medical staffs of the public hospitals consist for the most part of practitioners who give their services free of charge, the proportion of honorary medical officers being greater in the metropolitan district than in the country. The following statement shows particulars of the medical and nursing staffs attached to the public hospitals during 1929:—

Hospitals.	Medical Staff.		Nursing Staff.		
	Honorary.	Salaried.	Nurses.	Wardsmen & Wardmaids.	Total.
Metropolitan ...	795	150	1,942	109	2,031
Country... ..	406	127	1,505	89	1,614
Total ...	1,201	277	3,447	198	3,645

The number of indoor patients treated, as shown below, represents the aggregate of the number of cases treated at each hospital, those admitted more than once during a year being counted each time admitted. The figures include transfers, of which particulars are not available, but the patients treated in the convalescent hospitals are excluded, as the majority of such cases are known to have been transferred from other hospitals. The figures relating to outdoor patients are exclusive of those treated at the dental hospital, who numbered 21,250 in 1928 and 24,437 in 1929.

Year.	Indoor Patients.					Outdoor Patients treated during the Year.
	Treated during the Year.	Died.	Remain- ing at end of Year.	Average per day.		
				Number.	Per 1,000 of mean popula- tion.	
1901	32,012	2,477	2,247	2,045	1.50	80,259
1911	56,564	3,550	3,409	3,302	1.98	116,346
1921	97,034	5,493	4,859	5,763	2.73	250,035
1926	131,003	6,559	5,892	6,862	2.96	399,663
1927	137,954	6,897	6,330	7,174	2.99	407,415
1928	148,461	7,075	6,703	7,381	3.04	401,973
1929	152,155	7,773	6,859	7,501	3.04	407,858

There has been a rapid increase in the number of cases treated in the public hospitals, and the average daily number of patients per 1,000 of the population has risen by more than 50 per cent. since 1911.

The number of outdoor patients, as stated, represents the aggregate of the number of distinct persons who received outdoor relief at each hospital where records are kept. The number is incomplete, as records of this form of relief are not kept at many hospitals, especially in country districts. The bulk of the cases are treated at five metropolitan hospitals in or close to the city, where the numbers recorded in 1929 were as follows:—Sydney Hospital, 64,304; St. Vincent's, 82,886; Royal Prince Alfred, 54,241; Royal Alexandra for Children, 35,556; Lewisham, 25,009. The total number of outdoor patients recorded in the metropolitan district was 333,139, and in the country 44,719, including 21,513 at the Newcastle Hospital.

The following statement shows the receipts and expenditure (including loans) of the public hospitals during the year 1929. The figures include particulars of the State hospitals, except those connected with the asylums for the infirm, which were excluded because it is not practicable to separate the expenditure incurred in the treatment of sickness from the expenses in respect of the ordinary functions of the asylums.

The receipts and expenditure of the Thomas Walker Convalescent Hospital, which is privately endowed, are excluded also.

Items.	Amount.			Per cent. of Total.		
	Metro- politan.	Country.	Total.	Metro- politan.	Country.	Total.
	£	£	£			
Receipts (including loans)—						
State Aid	518,924	384,154	903,078	46·6	49·4	47·8
Subscriptions, Donations, and Entertainments ...	343,457	220,722	564,179	30·8	28·3	29·8
Contributions by Patients...	162,591	125,222	287,813	14·6	16·1	15·2
Miscellaneous	88,591	48,199	136,790	8·0	6·2	7·2
Total Receipts	£ 1,113,563	778,297	1,891,860	100	100	100
Expenditure—						
Buildings and Repairs ...	250,924	159,599	409,623	23·2	20·7	22·2
Salaries and Wages ...	431,569	288,964	720,233	40·1	37·4	38·9
Provisions, Stores, and Out- patients	296,921	271,424	568,345	27·6	35·1	30·7
Miscellaneous	98,685	52,771	151,456	9·1	6·8	8·2
Total Expenditure	£ 1,077,199	772,758	1,849,957	100	100	100

According to the hospital accounts the State aid received by the metropolitan institutions in 1929 amounted to £518,924, or 47 per cent. of their total receipts. Of this sum £119,346 represented the expenditure in connection with the Coast Hospital and the Lady Edeline Hospital; the Sydney Hospital received £77,863; the Royal Prince Alfred, £79,832; the Royal Alexandra Hospital for Children, £20,390; the Royal North Shore, £28,714; the Women's Hospital, £33,269; the Canterbury District Memorial Hospital, £35,963; Balmain and District Hospital, £11,714; and Manly District Hospital, £25,884. The Benevolent Society of New South Wales received State aid for two institutions, viz., Royal Hospital for Women £32,223 and the Renwick Hospital for Infants £5,318; an aggregate amount of £7,465

was distributed amongst six hospitals conducted under the auspices of religious organisations. The balance, £31,213, was distributed amongst nine institutions, and four hospitals (including the Thomas Walker Convalescent Hospital) were not subsidised.

State aid represented 49 per cent. of the receipts of country hospitals. The amount included £42,413 for the upkeep of the State institutions, viz., the Waterfall Hospital for Consumptives and the David Berry Hospital. The hospitals to which State aid exceeding £10,000 was paid in 1929 were as follows:—Newcastle £41,982, Broken Hill £22,506, Junee £19,916, Wagga Wagga £12,510, Kurri Kurri £10,606, and Kiama £10,447. The balance £223,774 was allotted to 122 institutions, and two did not receive any aid from the State during the year. The foregoing particulars are exclusive of details regarding three country hospitals for which returns were not supplied.

Subscriptions, donations, bequests, and the proceeds of benefit entertainments, etc., yielded 29.8 per cent. of the hospital revenue, and contributions by patients represented 15.2 per cent.

The growth of hospital receipts and expenditure since 1901 is illustrated in the following statement:—

Year.	Receipts.					Expenditure.				
	State Aid.	Subscriptions and Donations.	Contributions by Patients.	Other.	Total.	Buildings and Repairs.	Salaries and Wages, Provisions, Stores, etc.	Other.	Total.	
	£	£	£	£	£	£	£	£	£	£
1901	91,363	50,939	23,698	16,727	182,727	17,354	141,339	17,365	176,118	
1911	159,147	131,244	50,099	22,867	363,357	50,902	263,037	34,877	348,816	
1921	507,268	344,253	148,756	62,368	1,062,645	160,499	818,715	80,067	1,059,281	
1926	751,497	568,272	211,942	95,479	1,627,190	313,450	1,079,391	117,388	1,510,229	
1927	783,740	591,096	233,000	102,183	1,715,019	377,809	1,172,931	120,319	1,671,059	
1928	853,984	456,374	251,667	177,917	1,740,942	454,873	1,226,181	137,847	1,818,901	
1929	903,678	564,179	287,813	136,790	1,891,860	409,623	1,288,578	151,456	1,849,657	

PER HEAD OF POPULATION.											
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.
1901	1	4	0	9	0	4	0	3	2	8	0
1911	1	11	1	7	0	3	4	4	0	7	3
1921	4	10	3	3	1	5	0	7	10	1	1
1926	6	5	4	11	1	10	0	10	14	0	2
1927	6	7	4	11	1	11	0	10	14	3	3
1928	7	0	3	9	2	2	1	6	14	5	3
1929	7	4	4	7	2	4	1	1	15	4	3

The average amount of hospital receipts per head of population has risen more than threefold since 1911, the amount in 1929 being 15s. 4d. per head, of which State aid represented 7s. 4d. per head of population, but fees paid while in hospital do not constitute the total amount of their payments, as many of them contribute at other times in the form of subscriptions, donations, etc.

The average annual cost of maintenance per occupied bed in hospitals, exclusive of the cost of buildings and repairs, was £177 10s. in 1929, viz., £183 in the metropolitan hospitals and £171 5s. in the country institutions. The average cost in the year 1928 was £171 5s., viz., metropolitan £178 1s. and country £164 5s. The cost of outdoor treatment and district nursing is excluded from these figures where the information is available; but the amount is not recorded separately in the accounts of many hospitals, including several where large numbers of outdoor patients are treated.

At the end of the year 1929 the invested funds of the hospitals amounted to £717,591 as compared with £603,129 twelve months earlier. Current accounts, however, showed a debit balance which increased from £248,213 to £299,578.

TREATMENT OF COMMUNICABLE DISEASES.

Within the State, the Board of Health is vested with authority to make provision for the treatment and prevention of infectious diseases. The Federal Government is responsible for the administration of the quarantine laws in respect of vessels, persons, and goods arriving from overseas ports.

Cases of such diseases as leprosy, bubonic plague, smallpox, scarlet fever, typhoid fever, diphtheria, infantile paralysis, cerebro-spinal meningitis, and encephalitis lethargica, must be notified to the Board of Health. Puerperal Infection was proclaimed notifiable as from 16th August, 1929. Typhus, yellow fever, and cholera were proclaimed as notifiable diseases on 12th August, 1927, in conformity with the terms of the International Sanitary Convention of 1926. Cases of bubonic plague are rare; no case has occurred since 1923. Cases of pulmonary tuberculosis previously notifiable in certain areas, were proclaimed as notifiable throughout the whole State from 1st March, 1929.

Where necessary, provision is made for the isolation of infectious cases. In the metropolis the majority are treated at the Coast Hospital. Country cases are accommodated in special wards of the local hospitals.

The following table shows the notifications of the various diseases in 1921 and later years. Particulars relating to the deaths and death rates are shown in the chapter relating to Vital Statistics:—

Disease.	1921.	1926.	1927.	1929.			Total.
				Metro- politan District.	Hunter River District.	Other Districts.	
Typhoid Fever ...	949	698	460	184	84	170	438
Scarlet Fever ...	1,060	4,755	8,369	3,371	170	1,678	5,219
Diphtheria...	6,854	3,579	4,059	2,077	537	1,660	4,274
Infantile Paralysis ...	184	81	25	149	6	86	241
Cerebro-Spinal Meningitis	30	32	25	15	2	11	28
Encephalitis Lethargica ...	†	...	3	17	1	8	26
Pulmonary Tuberculosis	1,240	1,265	1,158	1,076	41	98	1,215
Leprosy ...	2	1	2	...	...	1	1
Bubonic Plague ...	2	...	...	...	...	...	...
Puerperal Infection ...	*	*	*	42	...	2	44
Typhus Fever ...	...	...	...	...	...	3	3

*Notifiable since 16th August, 1929.

†Notifiable since 1st April, 1926.

Leprosy.

Persons suffering from leprosy are segregated in the Leper Lazaret, which was opened for the admission of patients in 1883, though statutory provision for the compulsory notification of the disease and detention of lepers was not made until 1890. In 1929 one person was admitted and one died. There were 20 inmates in the lazaret on 31st December, 1929, viz., 15 males and 5 females. Their birth-places were New South Wales 8, Queensland 2, Ireland 1, Sweden 1, Greece 1. Three were born in China, 2 in the Pacific Islands, and 2 were Australian aboriginals. The cost of management in 1929 was £3,659, or an average of £202 11s. 7d. per inmate.

Tuberculosis.

A remarkable reduction in the mortality from tuberculosis from 15 to 5 per 10,000 of population has been effected since the enactment of the Dairies Supervision Act of 1886, the Pure Food Act of 1908, and other legislation for the protection of the food supply from insanitary conditions; but the fact, as shown in the chapter Vital Statistics, that tuberculosis causes over 5 per cent. of the deaths in New South Wales, demonstrates the necessity for further drastic measures to prevent the spread of the disease.

Pulmonary tuberculosis has been notifiable in the Metropolitan and Newcastle districts since 1915, and in the Blue Mountains tourist district since 1916. Since 1st March, 1929, it has been notifiable throughout the State. The Board of Health has authority to prohibit affected persons from working in connection with the preparation or packing of food.

In 1926 arrangements were made by the Public Health authorities for an active campaign against tuberculosis. A Board of Control was appointed, with the Director-General as chairman *ex officio*. Other members represent the British Medical Association and various institutions and societies concerned with the care of tubercular patients, and two members are nominees of the Minister of Public Health. A special division of the Department of Public Health was formed to co-ordinate measures for the cure and prevention of the disease, to regulate the admission of patients to institutions, to arrange for the after-care of those discharged, etc.

For the treatment of cases of tuberculosis there are special institutions which are classified as public hospitals, e.g., the State Hospital at Waterfall, the Queen Victoria Homes for Consumptives at Wentworth Falls and Thirlmere, and the R. T. Hall Sanatorium at Hazelbrook. Advanced cases are accommodated in a branch of the Coast Hospital, which was opened in 1927 at the Prince of Wales (Repatriation) Hospital. The Repatriation Department of the Commonwealth maintains two institutions where treatment is provided for tuberculosis amongst returned soldiers, etc., and the Red Cross Society controls three sanatoria. Tuberculosis cases are received also at the Sacred Heart Hospice for the Dying, Sydney, and at private hospitals. Arrangements have been made with the Government of South Australia to provide sanatorium treatment in that State for patients from Broken Hill.

The Waterfall Hospital is the largest institution for the treatment of persons suffering from pulmonary tuberculosis. It contains 430 beds, and 612 males and 303 females were treated during 1929. The expenditure was £41,970; the average cost of treatment, excluding buildings, repairs, etc., was £106 7s. per occupied bed.

The dispensary system for the treatment of tuberculosis was inaugurated in Sydney in 1912 by the National Association for the Prevention and Cure of Consumption, when a dispensary was opened in the city. Throat and chest dispensaries have been established also in connection with two Metropolitan hospitals, and at Newcastle. Medical advice is given to patients, and nurses are employed to visit their homes and instruct the inmates in precautionary measures to prevent the spread of the disease. Four of the visiting nurses, including two attached to dispensaries, are paid by the Department of Public Health.

A village settlement for tubercular cases was opened at Picton Lakes in May, 1929. It was founded and is maintained by public subscription and admission is arranged by the Department of Public Health. At 31st December, 1929, there were 33 patients in residence.

Venereal Diseases.

The treatment of venereal diseases is regulated under the Venereal Diseases Act, 1918, which came into operation on 1st December, 1920. It prescribes that all persons suffering from such diseases must place themselves under treatment by a qualified medical practitioner, and must remain under treatment until cured. Medical practitioners are required to notify all cases to the commissioner appointed under the Act. Treatment by unqualified persons is prohibited, also the sale of certain drugs used in connection with these diseases, except when prescribed by a qualified medical practitioner.

Clinics have been established at eight metropolitan public hospitals, and free treatment is provided at subsidised hospitals, drugs and instruments being supplied by the Government. Special wards for these cases have been opened at the Coast Hospital and at the Newington and Liverpool State Hospitals, and an isolation block is under construction at the Royal Prince Alfred Hospital.

The notifications during the year 1929 numbered 5,226, of which 4,821 cases were notified in the metropolitan area, and 142 in the Newcastle district. Public hospitals and clinics notified about 50 per cent. of the cases. It is not considered, however, that notification is fully effective.

Prisoners suffering from venereal diseases are detained for treatment in lock hospitals attached to the gaols, in terms of the Prisoners Detention Acts, 1908 and 1918. Such prisoners may be detained even after the definite sentence is served, until certified by the medical officer as free from disease. During the year ended 30th June, 1929, the cases of venereal diseases treated in the gaols numbered 86, and orders for detention in the lock hospitals were obtained in the cases of 77 men and 3 women.

TREATMENT OF MENTAL DISEASES.

The law relating to persons suffering from mental diseases is contained in the Lunacy Act of 1898. Its provisions apply mainly to those who may be certified as insane and incapable of managing their affairs. Such persons may be admitted to an institution, if certified by two qualified medical practitioners, either at the request of relatives or friends, or upon the order of two Justices of the Peace, but relatives have the right of custody of insane persons brought before the Justices if they can give a satisfactory assurance that proper care will be taken of them. Persons found to be insane by proceedings before the Supreme Court in its lunacy jurisdiction may be admitted to mental hospitals upon the order of the Judge. The influx of insane persons to New South Wales is restricted under the Lunacy Act, which renders the owner, charterer, agent, or master of a vessel liable for the maintenance of any such person landed in the State.

The estates of persons proved to be incapable, through mental infirmity, of managing their affairs, are placed under the management and care of the Master in Lunacy.

Special courses of training in the treatment of mental and nervous diseases are provided for medical students at the Sydney University, where a chair of psychiatry was established in 1922.

Mental Hospitals.

The Government has set apart a number of institutions for the reception and treatment of insane persons, and private institutions may be licensed for the purpose. Licenses may be granted also for the reception of a single patient, but unauthorised persons are not permitted to take charge for profit of a person of unsound mind. All institutions for mental

cases, including reception houses, etc., for their temporary accommodation, are subject to inspection by the Inspector-General of Mental Hospitals. With his consent, harmless patients may be boarded out or released on leave, or they may be discharged to relatives or friends who undertake to care for them.

There are ten Government mental hospitals, in addition to a hospital for criminal insane, and three private institutions licensed to receive mental patients. Under an arrangement with the Government of South Australia, patients from Broken Hill are accommodated in a hospital in that State, the cost of their maintenance being paid by the Government of New South Wales.

At 30th June, 1930, there were in the mental hospitals and licensed houses in New South Wales 8,922 patients—4,951 males and 3,971 females; in the South Australian hospitals there were 24 men and 12 women from this State; 226 men and 229 women were on leave from the institutions; so that the total number of persons under cognisance as being of unsound mind was 9,413, consisting of 5,201 males and 4,212 females. These figures are exclusive of voluntary patients. The number at intervals since 1901 is shown below:—

At 30th June.	Number of Mental Patients.			Proportion per 1,000 of Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1901*	2,684	1,804	4,488	3·72	2·75	3·26
1911*	3,810	2,573	6,383	4·27	3·18	3·75
1921	4,510	3,432	7,942	4·21	3·33	3·78
1926	4,634	3,802	8,436	3·92	3·34	3·64
1927	4,754	3,856	8,610	3·93	3·32	3·63
1928	4,897	4,037	8,934	3·96	3·40	3·68
1929	5,035	4,105	9,140	4·01	3·40	3·71
1930	5,201	4,212	9,413	4·11	3·45	3·79

* At 31st December.

The proportion of the population who were under official cognisance as mental patients showed a tendency to decline between 1921 and 1928, but the ratio in 1930 was as high as in the former year. In order to ascertain the general rate of insanity amongst the population, it would be necessary to take into consideration the patients treated in their homes, and those suffering from mental disorders in a form which does not warrant certification as insane nor compulsory detention in a mental hospital.

The law does not make provision for the treatment of persons in the early stages of mental derangement, when specialised care is most likely to be beneficial. Steps towards meeting the needs of such persons were initiated recently by the establishment of a psychiatric clinic, where voluntary patients suffering from the milder forms of mental and nervous disorders are received upon their own request. Outdoor treatment is provided also. During the year 1928-29 the number of resident patients under treatment at the clinic was 589, and there were 129 in the institution at 30th June, 1929. At the other State mental hospitals voluntary patients are treated and the total number resident at 30th June, 1929, including those at the psychiatric clinic, was 336, viz., 191 males and 145 females. Psychiatric clinics have been established also within the wards of five general hospitals in the metropolitan district and in four country towns.

Reception houses have been established in Sydney, Newcastle, Kenmore (Goulburn), and Orange, where persons showing symptoms of mental diseases are placed under observation and cases of short duration are treated. The number under observation and care during 1928-29 was 2,091, and 1,257

were transferred to mental hospitals. At the State Penitentiary at Long Bay 73 persons were under observation during the year, and 23 were sent to mental institutions.

The number of admissions and readmissions to mental hospitals in various years since 1901 are shown below:—

Year ended 30th June.	Admissions.			Re-admissions.		
	Males.	Females.	Total.	Males.	Females.	Total.
1901*	387	309	696	77	75	152
1911*	674	387	1,061	113	73	186
1921	711	622	1,333	115	106	221
1926	709	612	1,321	130	87	217
1927	807	620	1,427	87	56	143
1928	793	667	1,460	89	65	154
1929	769	624	1,393	136	108	244
1930	789	569	1,358	125	111	236

* Calendar Year.

Of the admissions and re-admissions in 1928-29, natives of New South Wales numbered 1,005, England 242, Ireland 51, Scotland 56, other British countries 208, foreign countries 69, and in 6 cases the nationality was unknown.

During 1929-30 the number of patients who died in mental hospitals was 564, or 6.5 per cent. of the average number resident; 534 persons, or 6.1 per cent., were discharged as recovered; 195, or 2.2 per cent., as relieved and 14 were discharged without showing any improvement.

The records of persons admitted show that, among the exciting causes of insanity, mental anxiety, intemperance in drink, and venereal diseases were the most prominent. Among predisposing causes the most important were old age, congenital defects, and hereditary influence.

The average weekly cost of maintaining mental patients in Government institutions during the year 1929-30 was 28s. 10d. per patient, of which the State paid 23s. 10d., the balance being derived from private contributions. The following table shows the average weekly cost per patient during the years cited:—

Year ended 30th June.	Annual Cost of Mainten- ance of Patients.	Cost of Maintenance per Patient per week.		
		To State.	Private Contributions.	Total.
	£	s. d.	s. d.	s. d.
1921	512,797	23 10	3 3	27 1
1926	562,281	22 11	4 0	26 11
1927	599,657	23 11	4 2	28 1
1928	632,622	24 4	4 6	28 10
1929	658,755	24 1	4 11	29 0
1930	671,461	23 10	5 0	28 10

Variations in the cost of maintenance are due mainly to changes in rates of wages and in the prices of provisions. The cost of voluntary patients is included. During the year ended June, 1930, salaries and fees amounted to £438,257, the cost of provisions, stores, etc., was £192,606; fuel, light, and water, £23,231, and miscellaneous items, £11,367. These amounts are exclusive of the value of the farm products grown and consumed at the institutions, viz., £22,136.

DEAF-MUTISM AND BLINDNESS.

The number of persons who were deaf and dumb, as ascertained at the census of 1921, was 761, equivalent to one person to every 2,762 of the population, and the number of persons afflicted with blindness was 1,057 or one person in every 1,989.

A classification of deaf mutes and blind persons in 1921, according to ages, is shown below:—

Age Group.	Deaf Mutes.			Blind Persons.			Proportion per 1,000 of Population.	
	Males.	Females.	Total.	Males.	Females.	Total.	Deaf Mutes.	Blind.
Years.								
4 and under	89	86	175	39	26	65	·26	·10
15-39	205	158	363	137	73	210	·42	·24
40-64	81	92	173	220	132	352	·37	·76
65 and over...	21	29	50	234	196	430	·55	4·76
Total ...	396	365	761*	630	427	1,057*	·36	·50

* Includes 1 male and 2 female blind deaf mutes.

The care and education of the deaf and dumb and the blind are undertaken at several institutions. The New South Wales Institution for the Deaf and Dumb and the Blind is maintained partly by Government subsidy and partly by public subscriptions. Special educational courses are provided, the fees being remitted in cases of financial inability. The Sydney Industrial Blind Institute undertakes the care of the adult blind, and provides industrial training to enable them to earn a livelihood. Homes for the blind are conducted in connection with this institution, and a free circulating library of embossed books is provided. Institutions for the instruction of deaf mutes are conducted by Roman Catholic religious societies at Waratah for girls, and at Castle Hill for boys.

Under the Commonwealth invalid pension system provision is made for the payment of pensions to permanently blind persons above the age of 16 years.

WELFARE OF CHILDREN.

The Child Welfare Act of 1923 amended and consolidated the principal laws relating to the welfare of children in New South Wales, viz., the State Children Relief Act, 1901, the Children's Protection Act, 1902, the Infant Protection Act, 1904, the Neglected Children and Juvenile Offenders Act, 1905.

The provisions of the Act which relate to neglected or uncontrollable children, juvenile offenders, and children in institutions, apply to boys and girls under 18 years of age, and the other sections to children under 16 years. The Act authorises State relief in regard to neglected and destitute children, and it contains provisions for regulating the adoption of children and their maintenance in foster homes and in institutions, for protecting them from ill-treatment and neglect, for preventing their employment in dangerous occupations, and for regulating their employment in public performances and in street trading. Special courts, called Children's Courts, are maintained to deal with cases relating to children, and to adjudicate in regard to affiliation proceedings.

Orders of a magistrate to compel parents to meet the obligation of maintaining their legitimate children are made in terms of the Deserted Wives and Children's Acts of 1901 and 1913.

The Notification of Births Act of 1915 requires that in proclaimed districts the health authorities must be notified within thirty-six hours of the birth of a child. In this manner cases in which advice or assistance is needed are brought under cognisance. A Federal law, passed in 1912, authorises the payment of an allowance of £5 to mothers, to assist in defraying the expenses incidental to childbirth.

The Juvenile Smoking Suppression Act and the Liquor Act prohibit the use of tobacco by juveniles and the supply of intoxicating liquor to them; and the Public Instruction Act requires children between the ages of 7 and 14 years to attend school regularly. The employment of children in factories and industrial apprenticeship are subject to laws which are discussed in the chapters relating to Factories and to Employment.

In terms of the Widows' Pensions Act, 1925-1929, the State pays allowances to assist widows to maintain their children during years of dependency.

Maternity Allowances.

The Maternity Allowances Act of the Commonwealth, which came into operation on 10th October, 1912, provides for the payment to mothers of a sum of £5 in respect of each birth occurring in Australia. Payments are made in respect of still-born children if viable, but one allowance only is payable in the case of plural births. The allowances may be paid only to women who are inhabitants of, or who intend to settle in the Commonwealth, and they are not payable to Asiatics or to aboriginal natives of Australia or of the Pacific Islands.

The following statement shows the number of claims passed for payment in New South Wales in the years stated, in comparison with the number of confinements:—

Year.	Confinements (excluding Still- births).	Maternity Allowances.	
		Claims passed for payment.	Amount.
			£
1921	54,047	54,390	271,950
1926	52,573	53,420	267,100
1927	53,268	55,790	268,950
1928	54,257	55,250	276,250
1929	52,129	53,130	265,650

In each of the last fourteen years the number of claims passed for payment exceeded the number of confinements. This is due mainly to the fact that still-births are not included in the number of confinements, though maternity allowances are paid in respect of the births of viable children.

The maternity allowances paid in New South Wales up to the end of the year 1929 amounted, in the aggregate, to £3,553,640.

Baby Health Centres and Day Nurseries.

With the object of reducing the wastage of child life due to preventable causes the Government has established baby health centres in various parts of the city and suburbs, and in country towns.

A staff of nurses and an honorary medical officer are attached to each centre. The nurses instruct the mothers in hygiene at the centres and in their homes, and make arrangements for medical or dental treatment of mothers and children when necessary.

In March, 1930, there were 76 centres, viz., 39 in the metropolitan area, 16 in the district of Newcastle, and 21 in other country districts. During the year 1929 the attendances numbered 373,700, and the nurses made 165,700 visits to cases within the area served by the centres. The corresponding figures for the previous year were 331,000 attendances and 106,400 visits.

The Royal Society for the Welfare of Mothers and Children, incorporated in 1919, was established with the object of co-ordinating measures for the welfare of mothers and children. The society maintains two welfare centres in the city and conducts two training schools, where nurses may receive post-graduate training in infant hygiene and mothercraft. Associations of medical practitioners and of nurses, charitable organisations, and institutions for children are affiliated with the Society.

Six day nurseries have been established in the metropolis by the Sydney Day Nursery Association. Mothers who work outside their homes may leave their children at the nurseries during the daytime for the sum of 9d. per day. Food, clothing, and medical advice are provided, also kindergarten tuition.

In the outlying country districts nurses engaged by the Bush Nursing Association afford assistance to mothers and advise them as to the feeding and treatment of children.

Adoption of Children.

The Child Welfare Act of 1923, as amended in 1924, makes legal provision for the permanent adoption of children upon order of the Supreme Court in its equitable jurisdiction. Application to the Court may be made by adopting parents or by the Minister of Public Instruction on their behalf. If over 12 years of age, the child's consent to adoption is necessary, unless the Court dispenses with it owing to special circumstances.

An order of adoption terminates all rights and liabilities between the child and his natural parents, except the right to inherit property by reason of kinship. An adopted child takes the surname of his adopting parent in substitution for his own surname, and orders of adoption are registered by the Registrar-General. Application for orders of adoption may be heard in open court, or in public or in private chambers.

The number of children who had been adopted in accordance with the provisions of the Act up to 31st December, 1929, was 2,456.

Deserted Children.

In cases of desertion of wife or of legitimate children, the husband or father may be ordered, in terms of the Deserted Wives and Children Acts, to pay weekly or monthly contributions for their support. In cases relating to ex-nuptial children the father may be ordered, under the Child Welfare Act, to pay the expenses incidental to birth and periodical contributions for maintenance. In certain cases mothers may be required to contribute towards the support of their children. For disobedience or non-compliance with orders under these Acts offenders may be fined, or they may be committed to prison, and from the value of their work while in prison the cost of their upkeep may be deducted and the balance applied to the satisfaction of the orders.

Legislation has been enacted to provide for reciprocity in respect of orders for maintenance between New South Wales and other parts of the British Empire.

The following statement shows the number of cases in respect of wife and child desertion dealt with in the Courts of Petty Sessions and the Children's Courts during the year 1929:—

Cases.	Applications for Orders.			Non-compliance with Orders.		
	Order made.	Order refused.	Case with-drawn.	Order obeyed subse-quently.	Defend-ant im-prisoned.	Case with-drawn or dis-mitted.
For maintenance—Wife ...	1,651	263	1,513	1,654	653	1,479
Child ...	544	53	474	1,592	564	1,763
For expenses incidental to birth of illegitimate child ...	481	173	111	20	9	48
Total ...	2,676	489	2,098	3,266	1,226	3,290

In eight cases in which applications for orders were made and in three cases of non-compliance with orders the mothers were the respondents.

Children under State Supervision.

The function of supervising the children under the care of the State is exercised by the Child Welfare Department under the direction of the Minister for Education.

The Government has established shelters for the reception and temporary detention of children, industrial schools, and homes for cases requiring segregation or special treatment, and the Children's Courts may order near relatives to pay the cost of maintaining children therein. Children in institutions may be apprenticed or placed out in suitable employment or may be discharged to the custody of parents or other suitable persons.

The gross amount expended by the Government during the year ended 31st December, 1929, on account of the services of the Child Welfare Department, was £553,575. Of this amount, £109,570 represented payments to guardians of children boarded out apart from their parents; and allowances to mothers towards the support of their own children amounted to £259,510. Contributions by parents and relatives and repayments of maintenance allowances amounted to £22,055.

The following statement shows the annual expenditure of the Department during the last five years:—

Year.	Payments for Children.		Institu-tions, Homes, Hostels, etc.	Salaries.	Miscel-laneous.	Total Expendi-ture.	Contrib-utions by Parents and other Revenue.	Net Expendi-ture.
	Boarded-out.	In their own homes.						
	£	£	£	£	£	£	£	£
1925 ...	100,954	331,104	46,536	59,111	19,500	587,235	14,746	572,489
1926 ...	104,273	310,474	55,600	64,298	41,781	576,426	17,919	558,507
1927 ...	105,341	259,765	45,318	71,246	44,987	526,657	18,351	508,306
1928 ...	108,672	259,884	48,623	79,281	47,166	543,626	23,720	519,906
1929 ...	109,570	259,510	42,893	93,073	48,529	553,575	22,055	531,520

The total expenditure increased from £94,064 in the year ended April, 1911, to £390,652 in 1920-21 and to £587,235 in 1925. The increase was due partly to an increase in the number of children assisted, but in a greater degree to increases in the rates of payment, owing to higher cost of living.

Thus, in 1911, the average rate of payment for children boarded out apart from their parents was about 5s. 3d. per week, and for children with their mothers 3s. The weekly rate for children apart from their mothers is now 15s. if under 1 year of age and 10s. at ages 1 to 14 years, and the rates for the majority of the children living with their mothers is 10s. The expenditure of the Child Welfare Department on this form of relief decreased by reason of the introduction of widows' pensions in March, 1926.

The number of children under the supervision of the State, classified in accordance with the statutory provisions under which they were controlled, is shown in the following statement. The number in December, 1929, was 24,699:—

Classification.	1911.	1921.	1926.	1927.	1928.	1929.
State wards { Boarded out, etc. In shelters and industrial schools }	4,677	5,439	5,676 708	5,725 865	5,673 898	5,693 1,032
Children of widows, etc. ...	4,453	11,462	10,014	10,225	10,125	10,083
In licensed institutions ...	263	689	737	715	826	947
In foster homes... ..	559	290	505	525	403	491
Employed in theatres ...	216	220	894	809	816	722
On probation from Children's Courts	1,148	1,381	3,548	3,992	4,012	5,671*
Total	11,316	19,541	22,682	22,856	22,853	24,699

* Includes 1,661 on probation from State institutions, not included previously.

These figures do not include the children who are licensed to engage in street trading under conditions which are described later.

State Wards.

The boarding-out system has been adopted in regard to State wards, and treatment in institutions is restricted to special cases. The children are boarded out until they are 14 years of age to approved persons, the maximum number of children under the care of one guardian being three, except in cases of families comprising a greater number, brothers and sisters being placed usually in the same home. The children are supervised by salaried inspectors, whose efforts are supplemented by honorary officers. Women inspectors visit infants placed out apart from their mothers, and all such infants in the metropolitan area must be submitted to medical examination every fortnight during the first twelve months of life.

The State wards may be apprenticed with suitable employers or they may be restored to the custody of parents or other suitable persons. The children may be supervised for two years after their period of boarding out or apprenticeship has terminated.

For apprentices, the terms of indenture prescribe a wage payment and pocket-money on a specified scale. The wages are banked to the credit of the apprentice and one-third of the accumulated amount is paid to them on completion of apprenticeship, the balance remaining at interest till age 21 is attained. The majority of the girls are apprenticed in domestic service, and the boys to farmers, orchardists, and artisans in country districts.

The children boarded out as State wards in December, 1929, consisted of 3,972 boys and 2,585 girls, and they were distributed as follows:—Supported by the Government, 2,563 boys, 2,140 girls; adopted or boarded without subsidy, 284 boys, 307 girls; and apprenticed, 225 boys, 138 girls.

These figures do not include the children in the State industrial schools at Mittagong, Gosford, and Parramatta, nor those in the metropolitan shelters.

Relief of Children of Deserted Wives, etc.

A most important provision of the Child Welfare Act provides for contributions towards the support in their own homes of the children of widows in necessitous circumstances or of wives deprived of their husbands' support through desertion, illness, infirmity, or imprisonment. Relief in this form may be granted also in respect of ex-nuptial children. In 1928 contributions were paid to 4,389 mothers for the support of 10,083 children.

Since March, 1926, when the payment of widows' pensions was commenced, relief has not been payable under the Child Welfare Act in respect of children whose mothers are qualified for widows' pensions, but the Child Welfare Department assists the children of widows who are not eligible for such pensions, such as those qualified to receive invalid pensions which are provided by the Commonwealth Government.

Children in Foster Homes.

The law regarding the reception of children in foster homes, as amended by the Child Welfare Act, 1923, prescribes that such places must be licensed if one or more children under 7 years are received. No person, without a written order of the Court, may receive a child under 7 years of age to be maintained apart from its mother in consideration of the payment of money. The payments must be by periodical instalments, and the instalments may not be paid for more than four weeks in advance, nor exceed the sum of 30s. per week.

The number of foster homes registered in 1929 was 499, and the number of children 931. Twenty of the children died during the year, 266 were discharged to their parents, and 144 were removed from State supervision for other reasons, so that 491 remained in the foster homes at the end of the year.

Children in Charitable Institutions.

There are a number of children in institutions conducted by religious bodies and other organisations where they have been placed by their guardians in preference to being boarded out under the State system. Some of the institutions receive children from the Children's Courts. Those in which children under the age of 7 years are received must be licensed under the Child Welfare Act. In a few cases the parents contribute towards the support of the children, but usually they are maintained by the organisations which conduct the establishments.

At the end of the year 1929 there were 3,997 children in these charitable institutions, and there were 1,133 in the State institutions, such as homes for delicate children, industrial schools, and shelters. Particulars of the children in the various kinds of institutions are shown below:—

Institutions.	Metropolitan.		Country.		Total.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total.
Lying-in Homes	19	11	19	15	38	26	64
Benevolent Asylums ... ..	...	...	3	5	3	5	8
Orphan Asylums	413	545	783	800	1,196	1,345	2,541
Neglected Children's Homes—State ...	110	323	685	15	795	338	1,133
Others	232	511	19	28	251	539	790
Institutes for Deaf, Dumb, and Blind	92	79	48	45	140	124	264
Infants' Homes	98	84	53	51	151	135	286
Other Charitable Institutions	23	18	...	...	26	18	44
Total	999	1,571	1,610	959	2,600	2,530	5,130

Delinquent Children.

Cases of juvenile offenders under the age of 18 years are dealt with in the Children's Courts, by magistrates with special qualifications for the treatment of delinquent children.

Leniency is an outstanding feature in the treatment of the young offenders, and a large number are released after admonition, or on probation, committal to an institution being a final resort. The children brought before the courts are classified into distinct groups, according to the special treatment they require, consideration being given to the character of the child and the circumstances surrounding the committal of the offence, the home environment, the character of the parents, and the nature of their control.

Children committed to institutions may be detained in custody until the expiration of the period specified by the Court, or until reaching the age of 18 years. They may be indentured as apprentices with suitable employers or restored to the custody of parents or guardians.

A truant school is conducted at Guildford for the detention of boys under 14 years of age who are persistent truants. The average period of detention is between two and three months. The gross enrolment during 1929 was 187, and the average daily attendance 59.

The other State institutions for the reformation and training of delinquent children include the Farm Homes for Boys at Mittagong, Gosford, Narara, and Yanco, and the Girls' Industrial Schools at Parramatta and La Perouse. Under certain conditions children may be committed to approved institutions established by the religious organisations.

The Mittagong Farm Home is primarily for the reception of boys under 14 years of age. There were 328 admissions, 338 discharges and one death during the year ended 30th June, 1930, the number in the home at the end of the year being 274. The Gosford and Narara institutions are for older boys, who need strict discipline or who show tendencies liable to be developed into criminal habits, and for those who have failed to respond to probation or to treatment in the Mittagong Farm Home. At Gosford 388 boys were admitted during the year 1929-30, and 383 were discharged. The number at the end of the year was 234. The Yanco Home was established in 1928 when an experiment farm in the Murrumbidgee Irrigation Area was transferred to the Child Welfare Department for the purpose of providing training in the various branches of agriculture and rural pursuits for boys up to 18 years of age. Sixty-seven boys were admitted during 1929-30 and 57 were discharged and the number at 30th June, 1930, was 144. The Industrial Schools for Girls at Parramatta and La Perouse receive uncontrollable girls mostly between the ages of 13 and 18 years. During the year 1929-30 the number of girls admitted at Parramatta was 225, and 225 were discharged. The number remaining at 30th June, 1930, was 162. At the school at La Perouse 69 girls were admitted and an equal number discharged, and 48 remained in the institution at 30th June, 1930.

Mentally-deficient Children.

Experience obtained by the medical inspection of school children indicates that about 1 per cent. require special tuition on account of mental deficiency and efforts are being made to establish a comprehensive system for their treatment. Classes for such children have been established at eight schools in the metropolitan district. The classes are limited to about 15 pupils, so that each may receive individual attention, and in some cases the children have made sufficient progress for transfer to the ordinary schools.

A residential school for subnormal children was opened in 1927 at Glenfield, where four cottages and a central administrative building were erected on a plan which will allow the construction of four additional cottages if required. In each cottage accommodation is provided for 32 children. The site occupies 110 acres in a healthy locality, 4 miles from Liverpool, and the buildings are connected with the metropolitan water supply and electricity systems.

Employment of Children.

In other chapters of this volume particulars are shown regarding the employment of children in factories and as apprentices. There are two classes of employment in which children may not be employed unless licensed under the Child Welfare Act, viz., in public theatrical performances and in street trading.

Theatre licenses may be issued in respect of children over 7 years, subject to such restrictions and conditions as the Minister may think fit. The licenses may be rescinded at any time upon sufficient cause being shown.

Street trading is defined as hawking, singing or performing for profit, or any like occupation conducted in a public place. Boys under 12 years and girls are not allowed to engage in street trading, and the boys under 16 years must be licensed, and are required to wear a metal arm-badge whilst trading.

Precautions are taken by supervisors to ensure the regular school attendance of licensees under 14 years of age. Boys between the ages of 12 and 14 may trade between the hours of 7 a.m. and 7 p.m.; and boys over 14 years of age, between 6 a.m. and 10 p.m.

Particulars relating to the licenses issued during the last five years are shown below:—

Year.	Theatre Licenses issued.	Street Trading Licenses Granted to Boys.		
		Under 14 years of age.	14 to 16 years of age.	Total.
1925	821	1,285	616	1,901
1926	894	1,477	678	2,155
1927	809	1,562	605	2,167
1928	816	1,703	761	2,464
1929	722	1,684	759	2,443

With few exceptions the street trading licenses are issued to newspaper vendors. The licenses are issued half-yearly, therefore the number issued each year is approximately double the number of boys licensed. The number of licenses current at the end of 1929 was 818, viz., 600 held by boys under 14 and 218 by boys over 14 years of age.

Medical Inspection of School Children.

A system of medical inspection of school children was organised in New South Wales in 1913. The inspections are conducted by a staff attached to the Department of Education, consisting of 18 medical officers, 19 dentists (including 8 only partly employed in school work), 8 nurses, and 14 dental assistants.

Under existing arrangements an annual visit of inspection is made to nearly every school in the metropolitan area for the examination of the children in the first-class and those whose thirteenth birthday occurs in the year. Medical supervision is maintained in regard to special cases, and an

annual test is made of the vision of all the children. Outside the metropolitan area a triennial visit is paid to each school, so that every child is examined twice during the period of compulsory school attendance, *i.e.*, between the ages of 7 and 14 years.

Parents are notified of their children's defects, and are urged to have them treated. In the Metropolitan district children may be treated as outdoor patients at hospitals, or at the school dental clinics, two in number. In the country two oculists treat defects of vision, and there are eleven travelling dental clinics. One of the oculists is in charge of a travelling hospital, to which are attached two of the dental clinics.

During 1929 the number of children examined was 76,517 and 34,108 were found to have defects. The most numerous defects were in respect of teeth, 24,255 cases, nose and throat 7,997 cases, vision 4,126 cases, and hearing 1,515 cases. In addition to these children who were submitted for a full medical examination, the health of 28,053 children, examined in former years, was reviewed during 1929, and 11,104 were found to have defects.

The work of the medical officers of the Department of Education includes the investigation of epidemics of infectious diseases affecting school children; the inspection of school buildings; courses of lectures at the Teachers' College; lectures to senior girls in metropolitan schools on the care of babies, personal cleanliness, home hygiene, sick nursing, etc.; and lectures to parents. Special investigations are carried out into problems affecting the welfare of children, such as tuberculosis, goitre, crippling, and mental deficiency.

The expenditure on the Medical Officer's Branch in 1929, exclusive of administration, was £36,683.

CHARITABLE RELIEF.

In addition to hospitals for the treatment of sickness or disease, there exist both in the metropolis and in the country other institutions, such as homes for the aged and for children, also societies for granting casual aid to indigent persons, and for the help of discharged prisoners.

The State maintains five asylums, others are maintained partly by State aid and partly by private contributions, and a few are wholly dependent on private aid.

Four of the State asylums are for men and one is for women. These institutions were established as asylums for aged and destitute persons, but since the introduction of the old-age pension system the character of the work of three of the institutions has changed considerably, and they are used to a large extent for the treatment of chronic ailments. They contain special wards for persons suffering from cancer, tuberculosis, and venereal diseases.

The average number resident in the State asylums during the year 1929 was 3,635 as compared with 3,405 during the previous year. The average cost per inmate was £44 12s. 5d. In the hospitals attached to the three institutions, 6,277 cases of illness were treated during 1929—males, 5,150, and females, 1,127—and at the end of the year 1,496 cases remained under treatment.

The total number of inmates in the charitable institutions during the year 1929 was 32,650 persons, including 14,279 children. The discharges numbered 21,309, and the deaths 1,221. The number remaining at the end of the year was 10,120, *viz.*, 3,560 men, 1,430 women, and 5,130 children. A classification of the institutions in which the children were resident is shown

on page 438. The receipts of the charitable institutions amounted to £1,051,352, including the cost of State institutions and State aid to other establishments £729,267, and the expenditure amounted to £1,051,971.

A number of societies are active in the matter of charitable relief, *e.g.*, nursing, ambulance, and shipwreck relief; and in many suburbs and country towns benevolent societies have been formed for the relief of local distress.

For the purpose of organising and controlling the ambulance and transport services a board has been incorporated under an Act passed in 1919 and amended in 1924. The board delimits certain districts for administrative purposes, and in each district a committee is elected annually by the contributors to its funds.

The District Nursing Association and the Bush Nursing Association engage nurses to visit the sick, gratuitously if needed, the former in the metropolitan and the latter in the country districts. Public charitable collections are made periodically for the relief of distress or with the object of increasing the revenue of hospitals and charitable agencies. In the Metropolitan district during 1929-30 the Hospital Saturday Fund collected voluntary subscriptions and donations amounting to £38,162, and the United Charities Fund, £12,482.

The following is a comparative statement of the receipts and expenditure of the charitable institutions and societies:—

Particulars.	1901.	1911.	1921.	1928.	1929.
Receipts—	£	£	£	£	£
State Aid	153,752	192,941	668,044	833,230	948,139
Subscriptions, Fees, etc. ...	34,906	78,786	229,547	337,664	398,950
Other	44,999	67,519	68,363	129,436	128,649
Total	233,657	339,246	965,954	1,300,330	1,475,738
Expenditure—					
Buildings and Repairs	40,247	21,063	41,771	127,038	86,876
Maintenance, Salaries, Wages ...	174,679	293,460	871,475	1,182,581	1,297,678
Other	39,608	11,142	39,371	117,246	103,094
Total	253,934	325,665	952,617	1,426,865	1,487,648

Financial aid from the State in 1929 represented 64 per cent. of the total revenue. It included expenditure by the State in respect of Governmental charitable institutions, baby health centres, the Aborigines Protection Board, and the boarding out of children.

PROTECTION OF THE ABORIGINES.

The protection of the aboriginal natives of New South Wales is the function of a Board consisting of the Inspector-General of Police and other members, up to ten in number, appointed by the Governor.

On a number of reserves set apart for aborigines in various localities, dwellings have been erected, and assistance in the form of food and clothing is supplied when necessary. In 1929 the aborigines living on the reserves numbered 2,369.

Aboriginal children are required to attend school until the age of 14 years, and schools have been established for their exclusive use. The Board may assume control of the children and apprentice them, or place them in a training home. There is a training home for girls at Cootamundra, and a home for boys at Kinchela, on the Macleay River.

The Aborigines Protection Board collects annually certain particulars of aboriginals in the State, as far as it is practicable. The number recorded as at 30th June, 1929, included 1,234 full bloods and 7,108 half-castes, as well as a number of quadroons and octoroons.

The expenditure by the Aborigines Protection Board during the year ended 30th June, 1929, amounted to £40,535; including £26,698 for general maintenance, £4,213 for the purchase of stores, £8,929 for educational purposes, and £305 for medical attention and other services. An amount of £2,595 was received as revenue from sales of products raised on the reserves. The net expenditure during the year was £37,970.

PENSIONS.

In New South Wales pensions are provided for the aged, for the permanently invalided, for persons incapacitated during war service, for the dependents of deceased soldiers and sailors, and since March, 1926, for widows with dependent children. Provision is made also for superannuation in most sections of the Government services. An Act to provide a scheme of superannuation for certain employees of local governing bodies was passed in March, 1927, the cost to be borne partly by the councils and partly by the employees. The Act was proclaimed on 1st October, 1927. Several of the banking companies and other firms have made arrangements for the superannuation of employees.

Old Age and Invalid Pensions.

Old-age pensions are payable to women 60 years of age and over and to men 65 years of age and over, with a reduction to 60 years in the case of men permanently incapacitated, the prescribed period of residence in Australia being twenty years continuously. Absences amounting in the aggregate to one-tenth of the total period of residence do not involve disqualification.

Naturalised persons are eligible for pensions, but aliens, Asiatics (except those born in Australia and Indians born in British India), and aboriginal natives of Australia, Africa, the islands of the Pacific, and of New Zealand, are disqualified. A pension is not payable to any person if the net capital value of his property, exclusive of the value of his home, exceeds £400.

Invalid pensions are payable to persons over the age of 16 years who have resided continuously for at least five years, and have become incapacitated or blind, in Australia, also to persons permanently incapacitated or blind by reason of congenital defect if they were brought to Australia before the age of 3 years or have resided in Australia continuously for twenty years. Invalid pensions are not payable to persons whose relatives, i.e., father, mother, husband, wife, adequately maintain them.

The maximum old-age or invalid pension is £52 per annum which may be reduced proportionately in respect of any income or property of the claimant so that the pensioner's income will not exceed £84 10s.

If a pensioner is an inmate of a public benevolent asylum, or remains in a public hospital for over twenty-eight days he receives an allowance of 5s. 6d. per week instead of a full pension. If the pensioner had applied for a pension before entering the institution the Federal Government pays to the institution an allowance of 14s. 6d. per week for his maintenance, but no allowance is made to the institution in respect of a pensioner who is an inmate when he applies for a pension.

The following statement shows, in respect of old-age and invalid pensions, the applications received in New South Wales, the number of pensions

current, and the average rate and total liability in recent years in comparison with similar information for 1911-12, the first year of Commonwealth control:—

Year ended 30th June.	New Claims.	Pensions current in New South Wales at 30th June.			Weekly Rate of Pension, as at 30th June.		Estimated Annual Liability, as at 30th June.	Estimated Annual Liability per head of Population, as at 30th June.
		Males.	Females.	Total	Max.	Average.		
Old-age Pensions.								
					s. d.	s. d.	£	s. d.
1912	4,763	13,639	16,029	29,668	10 0	9 7	734,526	8 7
1921	5,727	16,033	23,004	39,027	15 0	14 1	1,428,258	13 8
1926	9,336	20,969	28,419	49,388	20 0	19 2	2,460,718	21 3
1927	8,140	21,990	29,540	51,530	20 0	19 1	2,563,028	21 7
1928	7,696	22,899	30,376	53,275	20 0	19 1	2,645,604	21 10
1929	7,792	23,401	31,183	54,584	20 0	19 1	2,710,734	22 0
1930	10,249	25,651	32,787	58,438	20 0	19 2	2,906,176	23 4
Invalid Pensions.								
					s. d.	s. d.	£	s. d.
1912	1,784	2,549	2,278	4,827	10 0	9 9	121,836	1 5
1921	3,278	7,016	8,371	15,387	15 0	14 9	588,588	5 8
1926	4,453	8,896	11,297	20,193	20 0	19 7	1,033,552	8 11
1927	4,434	9,576	12,669	21,645	20 0	19 7	1,105,624	9 4
1928	4,363	9,980	12,763	22,743	20 0	19 7	1,160,146	9 7
1929	4,652	10,486	13,480	23,966	20 0	19 7	1,220,908	9 11
1930	5,220	11,361	14,379	25,740	20 0	19 7	1,308,892	10 6

At 30th June, 1930, the number of pensioners in public benevolent asylums in New South Wales was 1,594, and the annual liability for their pensions at the rate of 5s. 6d. per week was £22,794.

The old-age and the invalid pensioners in New South Wales as at 30th June, 1930, represented respectively 23.3 and 10.2 per 1,000 of population, as compared with 24.0 per 1,000 and 9.8 per 1,000 in the Commonwealth. The number and proportion of pensioners have increased appreciably with each increase in the maximum rate and in the value of property which a pensioner may hold without disqualification.

The total expenditure by the Commonwealth on invalid and old-age pensions during the year ended 30th June, 1929, was £10,124,239, of which an amount of £9,991,299 was paid as pensions, including payments to pensioners in benevolent asylums and hospitals, and £132,940 to public benevolent asylums and hospitals for the maintenance of pensioners. In 1929-30 pensions amounted to £10,633,979 and payments to institutions to £157,346. In addition, the cost of administration amounted to £86,605 in 1928-9 and to £89,201 in 1929-30.

The amount of pensions, etc., paid in New South Wales during 1928-29 was £3,868,140, including £33,522 to asylums and hospitals. In 1929-30 the total amount was £4,071,778, of which £41,292 were paid to institutions.

Widows' Pensions.

The Widows' Pensions Act, 1925, as amended in 1929, provides for the payment of pensions to widows with dependent children. A widow is not qualified to receive a pension under the Act unless she was domiciled in New South Wales at the date of her husband's death, is residing in the State at the date of her application for a pension, and has been so residing continuously for a period of three years, and (except in cases noted below) has wholly or mainly dependent upon her for support a child, stepchild, or child legally adopted before her widowhood, who is under the age of 14 years. If a child is an invalid or possesses special scholastic ability the age limit for the purposes of this provision of the Act is 16 years. A widow

without dependent children may be granted a pension if she is at least 50 years of age and destitute or if on the death of her husband she is left unprovided for—the pension in the latter case being limited to the period of six months after the death of her husband. Continuous residence is not deemed to have been interrupted by occasional absences not exceeding one-tenth of the total period of residence, nor by absences during which the widow's children or her home was in New South Wales.

A pension may not be paid to any widow if she is receiving any other pension or allowance exceeding the amount of pension which, if otherwise qualified, she would receive under this Act; nor if she is an alien, or an Asiatic born out of Australia, or an aboriginal native of Africa, the islands of the Pacific, or New Zealand.

The maximum rate of pension is £1 per week in respect of the widow, and an additional amount of 10s. per week in respect of each dependent child under 14 years of age. The amount payable in each case is ascertained by deducting from the maximum annual amount £1 for each £1 by which the net income of the widow exceeds a certain amount, viz., £78 per annum, until 22nd January, 1930, when it was reduced to £26 per annum. For this purpose a widow's income is deemed to include any pension or allowance under any other Act; the earnings of the widow or her children under 14 years of age from personal effort; 5 per cent. of any real or personal property of the widow or her children which produces less than 5 per cent. per annum, except the house in which they reside and the furniture and personal effects therein; and any payment for the children's maintenance or education from any estate, etc. Her income was deemed to include also 25 per cent. of the earnings of children over 14 years of age residing with the widow until this clause was amended under an Act which commenced on 22nd January, 1930, and provided that 50 per cent. of the earnings may be included if the child resides with the widow and 25 per cent. of the earnings of unmarried children not residing with the widow. In special circumstances, however, the whole or part of such earnings may be disregarded. Her income is not deemed to include sick allowance or funeral benefit from any society, nor money received under an assurance policy on the destruction or damage of property; and, if the widow is paying rent for her home, the amount of the rent up to a maximum of £78 per annum is deducted from her income.

Pensions are not payable for any period while the pensioner resides out of New South Wales, except during occasional absence during which her family or home is in the State. Pensions are terminated on the marriage of a pensioner or on the date she becomes qualified to receive an old-age or invalid pension under Federal legislation. On the death of a widow the guardian of her children is entitled, with the Minister's approval, to receive the pension payable in respect of them.

The pensions became payable on 10th March, 1926. The number and cost in each year are shown below:—

Year ended 30th June.	Pensions current at end of year.	Pensions paid during year.	Cost of administration.
	No.	£	£
1926*	4,404	126,555	2,421
1927	5,449	553,707	7,489
1928	6,038	608,808	8,257
1929	6,328	637,551	7,827
1930	4,843	611,947	†

* March to June.

† Not available.

War Pensions.

War pensions are granted by the Commonwealth Government upon the death or incapacitation, as the result of warlike operations, of members of the naval or military forces, and are administered by the Department of Repatriation.

The number of pensioners under the War Pensions Act as at 30th June, 1930, was as follows:—

Pensioners.	New South Wales.		Commonwealth.	
	Number of Pensioners.	Average Fortnightly Rate.	Number of Pensioners.	Average Fortnightly Rate.
Incapacitated Soldiers	25,283	£ s. d. 2 1 1	74,578	£ s. d. 1 17 10
Dependents of Deceased Soldiers ...	9,973	} 0 15 6	{ 34,270	} 0 15 5
Dependents of Incapacitated Soldiers	54,715		{ 170,487	
Total	89,971	1 2 9	279,285	1 1 5

At 30th June, 1930, there were 89,971 war-pensioners current in New South Wales, and the annual liability was estimated to be £2,635,802. The actual expenditure on account of pensions in New South Wales during the year ended 30th June, 1930, was £2,736,473, the total expenditure by the Commonwealth being £7,397,291. The cost of administration was £172,047.

Government Service Pensions.

The existing pension funds for employees of the State Government of New South Wales are the Public Service Superannuation Fund, the Police Superannuation and Reward Fund, and the Government Railways Superannuation Fund. An Act which provides for the superannuation of employees of the Commonwealth Government came into operation on 22nd November, 1922. These funds are maintained partly by deductions from officers' salaries and partly by grants from the public revenue.

Special provision is made by the State Government for pensions to judges, the amount paid from Consolidated Revenue during the year ended 30th June, 1930, being £10,699.

The first Public Service Superannuation Fund in New South Wales was established by the Civil Service Act, 1884, but in 1895 the admission of new contributors was discontinued and the existing contributors were given the option of withdrawing from the fund. The officers who elected to discontinue their contributions became entitled under prescribed conditions to receive refunds and gratuities on retirement. Officers who have continued to contribute are entitled to an annual pension equal to one-sixtieth of the average annual salary for the last three years' service, multiplied by the years of service, not exceeding forty, the pensions being payable on retirement through incapacity or at age 60, or on abolition of office. The amounts payable from the fund in excess of contributions are paid out of Consolidated Revenue. Contributors under this scheme were authorised to exchange their rights for new rights under the Superannuation Act of 1916, as described below.

On 30th June, 1929, there were 676 officers in receipt of pensions amounting to £167,893; and five pensions amounting, in the aggregate, to £541, were being paid in respect of deceased officers who had commuted their pensions rights in terms of the Superannuation Act of 1916. In addition, 165

officers, who had been transferred to the Commonwealth Service, were receiving pensions amounting to £40,745, a portion, £13,258, being payable by the State and the balance by the Commonwealth Government.

The existing Public Service Superannuation Fund was constituted by the provisions of the Superannuation Acts, 1916 and 1918, the provisions of which have been described in previous issues of this Year Book.

Certain sections of the Superannuation Act, which conferred pension rights without contributions on employees who had reached the age of 60 years, came into force in 1916, and the other provisions on 1st July, 1919.

At 30th June, 1929, the number of employees contributing to the fund was 20,964, viz., 13,916 men and 7,048 women. The pensions in force in respect of contributors numbered 2,252, amounting to £175,340 annually, and 1,555 pensions were payable in respect of persons who had not contributed to the fund, the annual amount being £108,885. During the year ended 30th June, 1929, the income of the fund amounted to £1,261,650, including contributions due by employees £301,838 and £457,043 due by employers.

The funds of the Board at 30th June, 1929, amounted to £10,805,028, including £7,561,520 invested in securities and £3,234,070 due for employers' contributions. An agreement was made between the Superannuation Board and the State Treasury for the payment of the Crown contributions in respect of employees who were over the age of 30 at the commencement of the Act by equated payments of £233,253 per annum for a period of thirty-four years from 1st July, 1925. Subsequently this arrangement was abandoned and in terms of amending legislation the Crown contributions from Consolidated Revenue as from 1st July, 1929, are to be paid as the pensions become due.

The total amount of pensions payable under the Civil Service and the Superannuation Acts as at 30th June, 1929, was £493,405, including £27,487, payable by the Commonwealth.

A pension fund for the police was established in 1899, amending legislation being passed in 1906 and 1925. Annual contributions by members of the service are at the rate of 4 per cent. of salary. Other sources of revenue are penalties imposed on members of the police force, penalties and damages awarded to the police as prosecutors, and the proceeds of the sale of unclaimed goods in possession of the police. The amount of pension payable to members who entered the police service prior to 1906 is graduated in accordance with length of service. The retiring age is 60 years, except in cases of incapacitation, but under prescribed conditions the services of any member of the force may be retained until he reaches the age of 65 years. During the year ended 30th June, 1929, the receipts of the Police Superannuation and Reward Fund amounted to £245,736, including deductions from salaries, £47,626, and special appropriation from Consolidated Revenue, £167,450. The disbursements, £245,968, included pensions, £235,833, and gratuities, £9,707.

The Railway Service Superannuation Fund was established in October, 1910. The contributions from employees are at the rate of 1½ per cent. of wages or salary, and the railway and tramway funds provide all that is necessary beyond such contributions. The amount of pension payable is one-sixtieth of the average annual salary during term of service, multiplied by the number of years of service, the maximum pension being two-thirds of the average salary. At 30th June, 1930, there were 43,156 contributors. The number of pensions in force was 3,694, amounting in the aggregate to £298,670 per annum. Since the inception of the fund, 5,921 pensions have been granted, and 2,038 pensioners have died; 207 officers have been re-employed, and 22 pensions have been written off the books. During the year 1929-30 the receipts of the fund amounted to £346,590,

including deductions from salaries £206,939, and an amount of £136,500 from the Government Railways and Tramways Fund. The disbursements, representing pensions, gratuities, refunds, etc., amounted to £346,576. The total amount paid in pensions since the inception of the fund on 1st October, 1910, was £2,506,229. The total subsidy from the Consolidated Revenue Fund up to 30th June, 1928, was £402,650. From 1st July, 1928, the subsidy became payable from the Railways and Tramways Fund, the amount received to 30th June, 1930, being £196,500.

In the Superannuation Fund for the Commonwealth Public Service as at 30th June, 1930, there were 31,446 contributors, of whom approximately one-third were in the State of New South Wales.

FAMILY ALLOWANCES.

The introduction of family allowances in New South Wales in terms of the Family Endowment Act, 1927, was an outcome of the system of wage regulation which is described in the chapter relating to wages. Endowment is not restricted to the children of wage and salary earners, and it is payable in respect of all families with dependent children where the income is below the limit prescribed by the Family Endowment Act and its amendments.

The maximum rate of endowment is 5s. per week in respect of each child for whom endowment is payable. The age limit is 14 years, but payments may be continued to 16 years if the child is incapacitated. Children in charitable institutions are included within the scope of the system. Illegitimate children are excluded generally, but the Commissioner of Family Endowment has discretionary power to pay endowment in respect of such children under special circumstances. Other exemptions are children of fathers who are aliens, Asiatics, or aboriginal natives of Africa, the Pacific Islands, or New Zealand, unless born in Australia; children for whom pension is payable under the Widows' Pensions Act or any other State or Federal Act except the War Pensions Act; children for whom family allowance is paid in the Commonwealth Public Service.

Where practicable, the endowment is paid to the mothers, and for them there is a residence qualification of two years in New South Wales immediately preceding the date of claim. There is a similar qualification in respect of the children except those under 2 years of age who were born in the State.

The maximum rate of endowment is 5s. per week per child, and the amount is reduced where necessary so that it will not raise the family income beyond the prescribed limit. Up to December, 1929, the limit was the amount of the current living wage, based on the requirements of a man and his wife without children, and £13 for each dependent child, and allowances were granted for a period of a year on the basis of the family income of the twelve months preceding the application. On the date mentioned the Industrial Commission was required to base its determinations of the living wage on the requirements of a family consisting of a man, wife and one child and the Family Endowment Act was amended to exclude from the allowance payable to each family one of the children who would have been eligible but for the amendment, exception being made in regard to children in charitable institutions. The amending Act provides also that in the case of wage-earners except those following occupations of a seasonal character endowment may be granted for a period of one, two, three or four quarters on the basis of the average family income for a similar period before the date of a claim.

The family income is defined as the combined income of the claimant, his spouse, and children under 14 years, including weekly payments as workers' compensation, and 5 per cent. per annum of real or personal property

(except their residence, and the furniture and personal effects therein), which produces less than 5 per cent. per annum. In assessing the income the following amounts are excluded, viz., sick pay and funeral benefits from any society; money received under fire insurance policy; lump sum payments as workers' compensation or superannuation or gratuity; earnings of children under 14 years; earnings of mother from casual employment; war pension for a member of the Forces or his wife or widow or his children; earnings from overtime up to £26; and where income is derived otherwise than from wages, the amount expended in the production of that income.

The number of claims for endowment received during the year ended 30th June, 1928, was 44,703 and 39,132, representing a fortnightly liability of £52,928, were granted. During the year 1928-29 the claims numbered 48,720 and at 30th June, 1929, endowment was payable to about 42,000 families, the fortnightly liability being £56,808. The cost of administration was £62,047 in 1927-28 and £99,353 in 1928-29.

During the year 1929-30, the number of claims lodged was 49,491, viz., original 13,198 and renewal 36,293. Of these 40,324 were granted, 5,875 were rejected, and 3,292 were under consideration. The amount of endowment paid during the year was £1,261,202 as compared with £1,553,886 in 1928-29. The cost of administration amounted to £175,632 in 1929-30, including £65,000 for interest on Treasury advances during a period of two years. The number of families receiving endowment at 30th June, 1930, was about 37,000. Approximately 8,000 families receiving endowment for one child were excluded in December, 1929, in terms of amending legislation.

The moneys for endowment are payable from the Family Endowment Fund, to which employers are required to pay a tax on the total payments to employees in the form of wages, salaries, bonuses, commission, or remuneration for piece-work; and for each employee for whom board and lodging are provided £1 per week is added to the wages for the purpose of assessing the tax. The tax is not levied on wages paid to domestic servants employed otherwise than in the employer's trade or business, or to members of a family employed by a parent, nor in cases where the employer's annual wages bill does not exceed £150, nor where the employer is a public hospital or public benevolent or charitable institution.

In respect of employees working under Federal award or agreement the tax was reduced by 10 per cent. until 1st January, 1930, when such wages became exempt from tax. Other wages exempted at that date were those paid under awards, etc., which provide for allowances for children and the wages of Crown employees except those employed in connection with industrial undertakings and statutory bodies.

The Family Endowment Act came into operation on 23rd July, 1927, and the tax was collected at the rate of 3 per cent. on the wages paid between that date and 31st October following. Then the tax was suspended because the assessments exceeded the amount required to meet the claims for endowment which had been lodged and to defray costs of administration. On 1st April, 1929, the tax was re-imposed, the rate being reduced to 2 per cent., and on 1st April, 1930, it was reduced to 1 per cent. The amount of tax levied up to 30th June, 1929, was £1,072,138. The proceeds of the tax in 1929-30 were £1,886,715.

Officers of the Public Service of the Commonwealth, of whom a large number are employed in New South Wales, have received child endowment since November, 1920. The payments are at the rate of 5s. per week for each dependent child under the age of 14 years, provided that it does not bring the remuneration of the officer above £500 per annum. In effect the cost is borne by the employees in the service, because in assessing the basic

wage upon which he determines their salaries and wages, the Public Service Arbitrator deducts from the rate, which otherwise would be awarded, a sum to cover the cost of endowment.

Employees of banks in New South Wales also receive child endowment in terms of an award for bank officers made by the Industrial Commission of New South Wales in June, 1927. The banks are required to pay allowances to officers covered by the award, at the rate of £35 per annum for each child under the age of 14 years, or, if at school, under the age of 16 years, provided that the amount of these allowances, together with salary, apart from other allowances, does not exceed £750 per annum.

THRIFT.

Evidence that thrift is practised extensively in New South Wales is found in the strong position of friendly societies—both in membership and finances; in the large number of savings bank accounts and in the increase in deposits; in the flourishing condition of life assurance institutions; and in the growth of Starr-Bowkett building societies and co-operative trading societies. For particulars of the savings banks, and other financial institutions, reference should be made to the chapter of this volume relating to private finance.

FRIENDLY SOCIETIES.

Friendly Societies for many years have exercised a strong influence for good among the industrial classes by inculcating habits of thrift, and by preventing and relieving distress.

The benefits assured are fairly uniform in all societies, and consist usually of medical attendance and medicine for a member and his family, with sick pay for the member, and funeral allowances for the member and his wife. The usual sickness benefit is 21s. per week during the first six months of illness, 15s. during the next six months, and 5s. per week during the remainder of illness, this last provision being rendered possible by the system of State subvention, of which details are given later.

The funeral benefits range usually from £10 to £40 at death of the member, according to the period of membership, and a contingent benefit of £10 or £15 is payable on death of his wife. In several societies members may assure for sums up to £100, and in two of them it is possible to assure for £200, the maximum allowed by law. A separate benefit for widows of members—usually £10—may be assured in most of the societies for a stated contribution.

The societies may be divided into two classes, viz., Friendly Societies proper, and Miscellaneous Societies, whose objects bring them within the scope of friendly societies legislation, but whose benefits differ somewhat from those of ordinary friendly societies.

At 30th June, 1929, there were 53 societies, including 20 miscellaneous; 16 possessed branches, and 37, including one with a juvenile branch, were classed as Single Societies.

The following summary shows the branches, membership, and funds as at 30th June, 1929:—

Classification.	Branches.	Members.	Funds.
Friendly Societies Proper—	No.	No.	£
Affiliated	2,452	244,726	3,709,479
Single	18	3,004	54,753
	2,470	247,730	3,764,232
Miscellaneous Societies	20	...	71,553
Total	2,490	247,730	3,835,785

The number of members has grown rapidly since 1899, when societies were first subjected to supervision by the Registrar. In that year there were 78,245 members, equal to 5·9 per cent. of the population. Thereafter a continuous development proceeded until the outbreak of war, when the number declined owing to enlistments, and, subsequently, through deaths on active service. There has been an increase in each year since the termination of the war. The membership at intervals since 1899 is shown in the following table:—

At 30th June.	Aggregate Membership.		At 30th June.	Aggregate Membership.	
	Members.	Percentage of Population.		Members.	Percentage of Population.
1899*	78,245	5·9	1926	234,699	10·1
1901*	89,684	6·5	1927	238,527	10·0
1911*	164,910	9·7	1928	242,199	10·0
1921	199,688	9·5	1929	247,730	10·0

*At 31st December.

The number of members entitled to benefits at 30th June, 1929, was 228,125, and 19,605 were ineligible on account of arrears of contributions. The benefits of medical attendance and medicine accrue also to the member's family, but such persons are not included in the membership.

The membership at 30th June, 1929, included 203,758 men, 20,943 women, and 23,029 juveniles. As compared with the membership at 30th June, 1928, there were increases of 3,314 men, 923 women, and 1,294 juveniles; the total increase being 5,531.

Information regarding receipts and expenditure of Friendly Societies, and the accumulated assets, may be found upon reference to the chapter of this Year Book entitled Private Finance.

Miscellaneous Friendly Societies.

In addition to the Friendly Societies proper there were at 30th June, 1929, twenty miscellaneous societies registered under the Friendly Societies Act. These organisations were medical institutions or dispensaries for the supply of medicine to all members whose names have been placed on their lists of contributing branches. In some cases the societies arrange for medical attendance.

The receipts of the dispensaries during the twelve months ended 30th June, 1929, were £61,058, and the expenditure was £55,661, so that there was an excess of receipts amounting to £5,397. Many of these bodies have received liberal grants from the Government, and with this assistance were able to purchase land and to erect buildings. In some cases funds were raised by the issue of interest-bearing debentures to component societies. In addition to paying interest, most of the dispensaries have made substantial reductions in the principal. The funds at 30th June, 1929, amounted to £71,553.

State Subvention of Friendly Societies.

The Subvention to Friendly Societies Act, 1908, now consolidated with the Friendly Societies Act, assured to the societies, which might elect to be bound by its provisions, certain monetary benefits payable from the Consolidated Revenue of the State for the purpose of enabling them to pay sickness benefits for extended periods, and to relieve aged members of the necessity of paying contributions.

The following is a summary of the claims during the five years ended 30th June, 1929:—

Year ended 30th June, 1929.											
Year ended 30th June.	Applicant Societies.	Sickness Pay.				Contributions.				Total Amount of Claims.	
		Continuous Sickness.		Sickness of Aged Members.		Medical.		Funeral.			
		Claimant Members.	Amount.	Claimant Members.	Amount.	Claimants.	Amount.	Claimants.	Amount.		
		£	£	£	£	£	£	£	£		
1925	27	1,477	7,775	3,239	22,008	10,703	19,068	11,405	6,029	54,880	
1926	26	1,565	8,368	3,576	23,589	11,604	20,654	12,283	6,469	59,080	
1927	25	1,603	8,526	3,847	25,508	12,359	21,959	13,099	6,736	62,723	
1928	25	1,732	9,155	4,027	26,709	13,321	24,106	13,866	7,336	67,306	
1929	26	1,933	10,167	4,207	28,675	14,019	25,085	14,720	7,836	71,763	

The total amount paid to the societies in respect of subvention claims to 30th June, 1929, was £766,052.

The system has been beneficial to all the societies, but more particularly to those in which the proportion of aged members is large.

COMMUNITY ADVANCEMENT AND SETTLEMENT SOCIETIES.

The Co-operation Acts, 1923-1929, provide, *inter alia*, for the formation of community advancement societies and community settlement societies. Community advancement societies may be formed to provide any community service or benefit, *e.g.*, to transport and supply water, gas, and electricity, to establish factories and workshops, to undertake farming operations and the purchase of machinery for its members, to erect dwellings, to maintain buildings, etc., for education, recreation, or other community purpose, to promote charitable undertakings, and to do anything calculated to improve the conditions of urban or rural life in relation to the objects specified.

Community settlement societies may be formed for the purpose of acquiring land in order to settle or retain people thereon, and of providing any community service, and with these objects they may do anything calculated to promote the economic interests of their members.

Up to the end of October, 1930, eighteen community advancement societies had been registered under the Act. Four are in liquidation, and of those in operation eleven were formed for the object of erecting and maintaining public halls, two for establishing recreation clubs, and one is an educational society. One community settlement society had been registered but was wound up in 1930.

HOUSING.

A classification of the occupied dwellings in New South Wales, as disclosed by the Census of 1921, according to the nature of the dwelling, the number of rooms and materials used appears in previous issues of this Year Book.

Construction of Dwellings.

The Local Government Act confers extensive powers on municipal and shire councils for supervising and regulating the construction of buildings, and for promoting schemes of town-planning on modern lines. To assist the councils a Town Planning Advisory Board was appointed by proclamation of the Governor in October, 1918.

A Board of Architects has been established, in terms of the Architects Act, 1921, for the purpose of regulating the practice of architecture. Persons using the name "architect" are required to be registered, registration being granted to persons over 21 years of age who possess the requisite qualifications. The Act does not apply to naval architects. In January, 1930, there were 677 registered architects.

Brick buildings predominate in the city and suburbs, and local sandstone, and, in recent years, concrete are used to a great extent in the construction of the larger buildings. For suburban dwellings the cottage plan is favoured. The maximum height of buildings in the metropolitan district is limited by law to 150 feet, except in the case of those erected for the purposes of public worship. Outside the city proper, permission must be obtained from the Chief Secretary for the erection of buildings over 100 feet high. The skyline must be approved by him and adequate provision must be made for protection against fire.

In the city of Sydney improvements in regard to housing have been continuous during recent years. In addition to the operations undertaken by private enterprise the City Council has been active in resuming and re-modelling insanitary and congested areas.

The records of the local government councils supply data regarding building operations in incorporated areas. The following table shows the number of permits granted by suburban councils in the metropolitan district for new buildings and for additions and alterations to existing buildings and the estimated cost thereof. Similar details are not recorded by the City Council, and the particulars shown in respect of the City of Sydney relate to assessments by the Metropolitan Water, Sewerage and Drainage Board. In reviewing the data shown in the table it is necessary to make allowance for the fact that application to a council for a permit must be made before the construction of a building is commenced, whereas assessments by the Metropolitan Water, Sewerage and Drainage Board are made when the building or a section thereof has been practically completed.

Year.	Assessments in City of Sydney by Metro- politan Water, Sewerage and Drainage Board.		Building Permits granted in Metropolitan Municipalities (except City of Sydney).			
	New Buildings assessed.	Estimated cost of new buildings and of additions and alterations.	New Buildings.		Additions and Alterations	
			Permits.	Estimated cost.	Permits.	Estimated cost.
	No.	£	No.	£	No.	£
1921 ...	67	1,399,467	5,475	4,964,175	4,323	739,436
1926 ...	168	2,621,780	10,504	8,534,062	6,708	1,091,051
1927 ...	214	2,795,277	8,891	9,837,616	9,774	1,434,107
1928 ...	325	3,630,037	8,705	9,768,455	9,884	1,520,474
1929 ...	151	4,945,072	7,028*	8,268,759*	9,784*	1,519,290*

* Exclusive of five municipalities added to Metropolitan district as from 1st January, 1929.

In the City of Sydney many very large buildings have been erected in recent years on sites where old structures have been demolished. The value of new buildings assessed by the Metropolitan Water, Sewerage and Drainage Board during 1929 amounted to £4,390,657, and the value of additions, etc., to £554,415. There has been a remarkable increase in the value during recent years, and the Board's records in 1929 did not yet show the decline in building projects, which is apparent in the figures relating to permits granted in suburban areas. The particulars regarding permits for new suburban buildings in 1926 probably include a number which were granted for the erection of garages as annexes to existing premises which in later years have been classified as additions.

As from 1st January, 1929, the area of the metropolis was extended to include the municipalities of Auburn, Granville, Lidcombe, Parramatta, and Bankstown, but for the purpose of comparison particulars of building permits granted in these municipalities during 1929 have been included, as

formerly, with those of the country districts which are shown in the following table, viz., 1,106 permits and estimated cost £801,247. There were granted also in the five municipalities, 828 permits for additions, etc., to cost £208,760.

Year.	Permits for new buildings in Country municipalities.		Year.	Permits for new buildings in Country municipalities.	
	Number.	Estimated cost.		Number.	Estimated cost.
1921	3,131	£ 1,979,109	1928	5,801	£ 4,391,344
1926	7,818	4,438,697	1929*	5,481	4,577,109
1927	6,463	4,647,941			

* Inclusive of five municipalities transferred to Metropolitan district as from 1st January, 1929.

The extent of building operations in various municipalities outside the metropolitan district is indicated by the following statement of the number and value of buildings for which permission to erect was granted during the last three years. Only those municipalities are specified where the estimated cost exceeded £45,000 in any of these years, and the other municipalities are grouped:—

Country Municipalities.	Estimated Population 31st Dec., 1929*	1927.		1928.		1929*	
		No.	Value.	No.	Value.	No.	Value.
			£		£		£
Auburn	19,650	267	156,299	224	189,105	158	127,994
Bankstown	21,630	756	362,485	606	367,418	434	297,305
Dundas	5,500	62	66,581	69	72,731	96	89,938
Granville	18,970	299	278,431	274	165,344	209	125,729
Lidcombe	15,490	260	157,212	233	155,424	191	133,309
Parramatta	17,489	109	113,945	135	135,756	114	116,910
Fairfield	7,570	93	45,050	93	48,000	69	37,410
Holroyd	14,420	290	190,679	267	154,666	245	147,578
Lismore	10,050	74	87,482	66	55,708	93	98,712
Newcastle and suburbs	104,640	1,025	828,680	765	654,532	573	481,999
Cessnock	14,120	157	74,123	27	13,893	6	4,621
Scone	1,920	14	6,284	21	90,592	21	14,965
Taree	2,310	43	45,315	49	32,353	32	32,074
Wollongong	10,230	128	107,211	215	159,358	279	234,556
Armidale	7,270	57	44,820	69	66,345	95	181,620
Bathurst	9,510	40	33,279	55	44,755	46	57,131
Cowra	4,450	33	26,676	23	20,864	63	53,975
Lithgow	15,320	96	61,223	26	20,365	22	14,409
Mudgee	3,070	29	15,357	52	49,887	28	19,560
Orange	8,610	91	91,013	92	82,843	109	111,930
Goulburn	12,740	110	92,516	120	100,871	106	122,334
Queanbeyan	4,930	138	84,326	13	12,750	5	2,280
Tamworth	7,890	77	64,525	103	86,385	142	110,275
Dubbo	5,920	144	123,184	144	113,104	78	59,002
Forbes	4,970	69	47,190	50	39,256	66	53,356
Parkes	5,830	45	42,403	68	60,072	101	102,510
Albury	9,580	146	152,083	111	129,713	99	149,224
Cootamundra	4,190	62	67,280	34	24,328	41	32,575
Wagga	9,030	172	140,271	87	126,285	10	92,785
Moree	3,690	22	19,342	40	31,762	61	172,450
Condobolin	1,930	51	47,217	31	17,798	17	18,824
Coonamble	2,370	24	12,636	23	10,183	35	64,063
Narrandera	3,550	81	60,901	39	28,553	45	41,713
Other Municipalities	239,930	1,399	896,930	1,578	1,030,545	1,701	1,174,593
Total	627,900	6,463	4,647,941	5,801	4,391,344	5,481	4,577,109

* Inclusive of Municipalities transferred to Metropolitan District as from 1st January, 1929.

There was a decline in building permits in the majority of country towns in 1929, but there were some notable exceptions, such as Wollongong, Armidale, Lismore, Tamworth, Parkes, and Moree.

Information is not available regarding the extent of building operations in the country outside the municipalities.

ASSISTANCE TO HOME BUILDERS.

Active measures for assisting the people to acquire homes have been taken in New South Wales by both State and Federal Governments. Assistance is given by erecting dwellings to be sold on the rent purchase system or by advances to defray the cost of erection or purchase, repayments being extended over a period of years.

In 1912 when there was a shortage of small dwelling-houses in Sydney, the Government undertook the construction of a model suburb, which was named Daceyville. The Housing Act was passed to make provision for the appointment of a Housing Board, and for the purchase and subdivision of land, and the erection of residences. In 1919 the Housing Board was authorised also to assist persons owning land to erect dwellings thereon, and to make advances for the purchase of dwellings already erected.

In 1924 arrangements were made to dissolve the Board, and its powers were vested in the Minister for Local Government.

During the period of its administration the Housing Board erected 818 dwellings and made advances in respect of 516 properties. Upon the dissolution of the Board 966 accounts, representing advances made by the Board, were transferred to the Commissioners of the Savings Bank for liquidation. The number of loans outstanding at 30th June, 1928, was 901, and the amount £562,470; and 877 loans £536,242 at 30th June, 1929.

In addition to the areas acquired in terms of the Housing Act, there is an area in the city, known as the Observatory Hill Resumed Area, which was resumed by the Government in 1900 with a view to reconstruction. It consists of about 30 acres in the oldest settled portion of Sydney, adjoining the wharfs, and contains a number of business premises and residences, including tenements built for waterside workers. Extensive improvements have been made in regard to buildings, streets, etc. The capital expenditure to 30th June, 1930, amounted to £940,677.

The Municipal Council of the City of Sydney controls three blocks of workmen's dwellings. The Strickland Buildings were opened in April, 1914. They consist of eight shops and 71 self-contained flats of two, four, or six rooms. The rents range from 15s. 6d. to 35s. per week. The Dowling Street Dwellings, opened on 29th June, 1925, consist of 30 flats of four or five rooms, for which the rentals are 26s. and 29s. per week. The Pyrmont Dwellings were opened on 2nd November, 1925. They contain 41 flats of four or five rooms, and the weekly rentals range from 25s. 6d. to 29s. The total cost of these blocks, including the land, was Strickland £49,814, Dowling Street, £23,000, and Pyrmont, £33,500.

ADVANCES FOR HOMES—SAVINGS BANK FUNDS.

The use of the funds of the Government Savings Bank of New South Wales for the purpose of making advances to home-builders was authorised by the Government Savings Bank Amendment Act of 1913.

In 1927 the Federal Parliament passed legislation by which the Commissioners of the Commonwealth Savings Bank of Australia were authorised to advance moneys to federal, territorial, State, or municipal authorities to be used under certain conditions for the purpose of housing

schemes. This legislation was proclaimed on 9th June, 1928, and in November following an Act was passed by the Parliament of New South Wales to enable the Commissioners of the State Savings Bank to obtain funds thus provided in terms of the Commonwealth Housing Act. At the same time the Bank was authorised to use its own funds for the erection of dwellings, and its existing scheme of advances for homes was amended.

Thus there are three housing schemes under the administration of the Government Savings Bank of New South Wales, viz., (1) Advances for homes under the Act of 1913; (2) the erection of dwellings by the Commissioners in terms of the Act of 1928; (3) advances from funds obtained from the Commonwealth Savings Bank. An explanation of these schemes appears in the last issue of this Year Book.

From 1st July, 1914, when the system of advances for homes was commenced, up to 30th June, 1929, the amount of £15,966,483 had been advanced to 29,601 borrowers, and the amount outstanding at that date was £11,471,161, owing by 22,254 persons.

The rate of interest charged for advances was raised from 5½ to 6 per cent. on 1st July, 1917, to 6½ per cent. from 1st July, 1920, and to 7 per cent. from 1st July, 1921. It was reduced to 6½ per cent. on 1st July, 1923, and to 6 per cent. on 1st July, 1926. For current loans at higher interest, the rate was reduced to 6½ per cent. from 1st July, 1925, and to 6¼ per cent. from 1st July, 1928.

The transactions during the years stated were as follow:—

Year ended 30th June.	Advances made.		Year ended 30th June.	Advances made.	
	No.	Amount.		No.	Amount.
		£			£
1915	575	221,900	1927	2,578	1,519,610
1921	2,489	1,282,360	1928	3,019	1,794,435
1925	2,673	1,531,775	1929	2,628	1,690,803
1926	2,724	1,619,650	1930	2,889	2,177,759

The advances in 1928-29 included 144 loans for £123,535 from funds made available to the Commissioners by the Commonwealth Savings Bank.

War Service Homes.

The Commonwealth Government assists Australian sailors and soldiers and their female dependents to acquire homes, the operations being conducted under the Commonwealth War Service Homes Act, 1918-29.

A summary of the activities of the Commission charged with the administration of the Act in New South Wales up to 30th June, 1929, shows that the Commission had decided to grant 12,999 applications for homes. The number of homes provided at that date was 11,170, viz., 5,788 by the construction of new houses, 4,196 by the purchase of existing dwellings, and 1,186 by the discharge of mortgages. There were 155 houses under construction at 30th June, 1929, and arrangements were in progress for the erection of 270 houses.

The average cost of construction was £839, excluding the cost of the land, for which the average was £80. The sums paid as instalments of principal and interest to 30th June, 1929, amounted to £3,758,717 and arrears of instalments amounted to £46,081.

PARKS, RECREATION RESERVES, AND COMMONS.

Under the Public Parks Act the Governor may appoint trustees of any lands proclaimed for the purposes of public recreation, convenience, health, or enjoyment. The trustees are empowered to frame by-laws for the protection of shrubs, trees etc., upon the land vested in them, and to regulate the use and enjoyment of such land by the public.

The public parks and recreation reserves which are not committed to special trustees are placed by the Local Government Act, 1919, under the control of municipal and shire councils. All the towns of importance possess extensive parks and recreation reserves.

The city of Sydney contains within its boundaries 648 acres of parks, squares, and public gardens. The most important are Moore Park, where about 354 acres are available for public recreation, including the Sydney Cricket Ground and the Royal Agricultural Society's Ground; the Botanic Gardens and Garden Palace Grounds, 65 acres, with the adjoining Domain of 86 acres, ideally situated on the shores of the Harbour; and Hyde Park, 37 acres, in the centre of the city. In addition, the Centennial Park, 552 acres in extent, is situated on the outskirts of the city. It was reserved formerly for the water supply, but now it is used for recreation, the ground having been cleared, planted, and laid out with walks and drives.

It has been ascertained that there are over 6,000 acres of public parks and reserves in suburban municipalities. This figure representing about 6 per cent. of their aggregate area is exclusive of some parks and reserves which the municipalities have acquired by gift or by purchase from private owners.

The Zoological Gardens at Taronga Park, on the northern side of the Harbour, were opened in 1916. The area is nearly 57 acres. In their preparation the natural formation has been retained as far as practicable, with the object of displaying the animals in natural surroundings. An aquarium has been built within the gardens.

Outside the metropolitan area the National Park, situated about 16 miles south of Sydney, was dedicated in December, 1879. The total area, with the additions made in 1880 and 1883, is 33,800 acres. The park surrounds the picturesque bay of Port Hacking, and extends in a southerly direction towards the mountainous district of Illawarra. It contains fine virgin forests with attractive scenery.

Another large tract of land, the Kuring-gai Chase, was dedicated in December, 1894, for public use. The area of the Chase is 35,300 acres, and contains portions of the parishes of Broken Bay, Cowan, Gordon, and South Colah. This park lies about 15 miles north of Sydney, and is accessible by railway at various points, or by water, *via* the Hawkesbury River. Several creeks, notably Cowan Creek, intersect it.

In 1905 an area of 248 acres was proclaimed as a recreation ground at Kurnell, on the southern headland of Botany Bay, a spot famous as the landing-place of Captain Cook. Parramatta Park (252 acres) is of historic interest.

Surrounding many country towns there exist considerable areas of land reserved as commons, on which stock owned by the townsfolk may be depastured. The use of these lands is regulated by local authorities. Nominal fees are usually charged to defray the cost of supervision and maintenance. Many of these commons are reserved permanently, but a large number are only temporary.

The area reserved for parks and recreation reserves, excluding alienated lands acquired by local councils or donated by private persons, was 255,632 acres at 30th June, 1929, and the area of permanent commons was 38,000 acres, and 388,000 acres were reserved temporarily as commons.

PUBLIC ENTERTAINMENTS.

Theatres and Public Halls, etc.

Buildings in which public meetings (excluding meetings for religious worship) or public entertainments are held, must be licensed under the Theatres and Public Halls Act, 1908. A license may be refused if proper provision is not made for public safety, health, and convenience, or if the site or building is unsuitable for the purpose of public meeting or entertainment. Plans of buildings intended to be used for theatres and public halls must be approved by the Chief Secretary before erection is begun. Licenses are granted for a period of one year, and premises are subjected to inspection before renewal. A license or renewal of a license may be withheld until such alterations or improvements as may be deemed necessary are effected.

As at 31st December, 1929, there were 2,592 buildings to which the provisions of the Act applied, and they contained seating accommodation for approximately 1,271,995 persons. The total amount of fees received for licenses during 1929 was £4,849.

Cinematograph films are subject to censorship prior to exhibition in New South Wales, those imported from oversea countries being reviewed by the Commonwealth customs authorities, and those made in Australia by a State board.

Horse-racing.

Horse racing, which includes pony racing and trotting races, is a popular form of sport in New South Wales, and with it is associated a large amount of betting.

If a racecourse is used for more than one class of racing—horse racing, pony racing, or trotting—a separate license must be obtained for each class. In 1929 the licensed racecourses numbered 395, and the licenses issued in respect thereof numbered 464. The maximum number of days on which it was permissible to hold race meetings in the metropolitan district during 1929 was 196, and in the district of Newcastle 90 days.

Betting or wagering is prohibited in connection with any sports except horse, pony, and trotting races on licensed racecourses, and coursing on grounds approved by the Chief Secretary, and betting or wagering after sunset on licensed racecourses or coursing grounds is illegal. Racing clubs may be required by the Colonial Treasurer to instal totalisators on their racecourses and to use them at every race meeting.

To facilitate the collection of betting taxes, bookmakers are required to use stamped tickets and to keep a record of credit bets. During the year ended 30th June, 1930, the number of betting tickets issued to bookmakers was 14,955,600, and approximately 700,000 credit bets were recorded. The investments on totalisators during the same period amounted to £2,241,176. In the year 1926-27, 15,690,000 betting tickets were issued, approximately 900,000 credit bets were recorded, and the totalisator investments amounted to £2,667,698. The amount of totalisator investments has decreased by 32 per cent. since the year 1920-21. Particulars relating to taxes in connection with racing are shown in the chapter relating to Public Finance.

Taxation of Public Entertainments.

A tax on public entertainments has been imposed by the Commonwealth Government since 1st January, 1917, the rate of tax being based upon the amount paid for admission.

From 1st December, 1919, to 1st October, 1922, the tax was charged on the payments for admission at the rate of $\frac{1}{4}$ d. for each 6d. or fraction thereof; but it was not charged on payments not exceeding 5d. for the admission of children under 16 years of age to places of continuous entertainment, *i.e.*, those open for more than four hours on three or more days in the week, nor for admission to entertainments intended only for children if the charge was under 6d. As from 2nd October, 1922, payments lower than 1s. were exempted from the tax, and since 15th October, 1925, tax has not been payable where the price of admission is less than 2s. 6d.

Where payment for admission is made in the form of a lump sum as a subscription to a club or association, or for a season ticket, the tax is collected on the amount of the lump sum. Certain entertainments are exempt from the tax, *e.g.*, if the proceeds are devoted wholly to philanthropic, religious, charitable, or educational purposes.

Particulars of taxable entertainments held in New South Wales and the Federal Capital Territory during the years 1927-28 and 1928-29 as recorded for the purposes of the Commonwealth Entertainments Tax, are shown below:—

Classification.	1927-28.			1928-29.		
	Entertainments.	Admissions.	Tax.	Entertainments.	Admissions.	Tax.
			£			£
Racing	1,529	2,138,351	57,302	1,523	1,788,829	48,499
Theatres	6,984	2,790,088	60,402	6,693	2,460,148	58,686
Picture Shows	6,026	1,326,930	18,364	6,124	1,776,272	27,104
Dancing and Skating ...	3,294	450,548	8,634	3,321	475,988	9,107
Concerts	783	104,978	1,828	430	65,285	1,142
Miscellaneous	2,271	639,659	10,575	1,896	863,507	14,439
Total	20,887	7,450,554	157,105	19,987	7,430,029	158,977

The State Government imposed a tax on entertainments as from 1st January, 1930. Particulars of the tax are shown on page 139 of this Year Book.

REGULATION OF LIQUOR TRADE.

The sale of intoxicating liquor is subject to regulation by the State Government in terms of the Liquor Act of 1912 and subsequent amendments. The sale of intoxicating liquor except by persons holding a license is prohibited. Several kinds of licenses are granted, *viz.*, publican's, packet, Australian wine, club, booth or stand, and railway refreshment room, all of which authorise the sale of liquor in small quantities; and spirit merchant's and brewer's for the sale in larger quantities.

The authority given by each of these licenses and the conditions attached thereto are described in the previous issue of this Year Book.

The Licenses Reduction Board, appointed under the Act of 1919, may reduce the number of publicans' licenses in any electorate where the existing licenses exceed the "statutory number," prescribed by the Act, which is

proportionate to the number of electors. For the purposes of the liquor licensing laws, the electorates are those which existed before they were rearranged in 1927 on the basis of single-member districts.

When deprived of their hotel licenses the holders, owners, lessees, etc., of the premises are entitled to compensation as assessed by the Board, payable from a fund obtained by levies on the licensees. In the case of wine licenses, only the licensees are entitled to compensation.

A licensee deprived of his license by the Board is paid as compensation for each year of the unexpired term of his tenancy (up to three years), the average annual net profit during the preceding period of three years. Owners, lessees, etc., of hotel premises receive compensation based on the amount by which the net return from the premises over a period of three years is diminished by being deprived of a license. Appeals against the determinations of the Board in respect of the compensation awarded may be made to the Land and Valuation Court.

On 1st January, 1920, the number of publicans' licenses in existence was 2,539, of which 2,085 were in fourteen electorates with more than the statutory number, and the maximum reduction which the Act authorised the Board to make was 483. During 1923 the number of electors so increased in two of the electorates, viz., Byron and Oxley, that the number of licenses was no longer in excess of the statutory number. A decrease in population placed the Balmain electorate within the jurisdiction of the Licenses Reduction Board in 1925, and for a similar reason the Oxley electorate was restored to its jurisdiction in 1926.

During the period from 1st January, 1920, to 30th June, 1930, the Board deprived 291 hotels of licenses and accepted the surrender of 94 licenses. Seventy-four of the hotels were situated in the Sydney electoral district, 23 in the district of Newcastle, and 288 in other country districts. The compensation awarded in respect of 382 publicans' licenses amounted to £647,820, distributed as follows:—Licensees, £227,745; owners, £408,547; lessees, £11,128; and sub-lessees, £400. Compensation has not yet been determined in the case of three hotels in the country. The compensation fees collected by the Board up to 31st December, 1926, when contributions ceased, amounted to approximately £1,500,000.

In addition to the hotel licenses terminated or ordered to close by the action of the Licenses Reduction Board, 69 licenses were terminated during the period by reason of expiration, cancellation, surrender to the Licensing Court, etc., and 50 new licenses were granted. The number of hotel licenses in existence at 31st December, 1930, was 2,120; of which 537 were in the Metropolitan Licensing district, 56 in the Parramatta district, 117 in Newcastle, 59 in Maitland, and 53 in Broken Hill district.

The Licenses Reduction Board may reduce the number of Australian wine licenses in any electorate by one-fourth of the number in force on 1st January, 1923, and may make a greater reduction where considered necessary in the public interest.

On 1st January, 1923, there were 441 Australian wine licenses, of which 220 were in the metropolitan electoral districts. Between that date and 20th November, 1930, the Board deprived 65 licensees of wine licenses, and accepted the surrender of seven licenses. Compensation in respect of 71 licenses amounted to £60,250, and compensation was not claimed in respect of one license.

Twelve wine licenses terminated by reason of expiration, cancellation, etc., and 3 new licenses have been granted since 1st January, 1923. The number in existence at 20th November, 1930, was 360.

The number of licenses for the sale of intoxicating liquor issued during various years since 1901 is shown below:—

Licenses.	1901.	1911.	1921.	1928.	1929.
Publicans'	3,151	2,775	2,488	2,141	2,142
Additional Bar ... ..	...	113	153	209	210
Permits to Supply Liquor with Meals—(6 p.m. to 9 p.m.) ...	...	...	...	187	164
Club ... ..	...	76	78	80	80
Railway Refreshment—					
General Liquor	22	24	29	34	35
Wine	*	*	*	16	19
Booth or Stand	1,787	1,829	2,337	3,098	3,057
Packet	20	24	13	9	8
Australian Wine, Cider, Perry ...	675	532	450	368	363
Spirit Merchants'	225	198	244	252	255
Brewers'	53	39	17	8	9

* Not available.

The annual fees payable for new licenses in respect of hotels, packets, and Australian wine are assessed by the Licensing Court, the maximum fees being £500, £20, and £50 respectively. Clubs pay £5 per annum for the first 40 members, and £1 for each additional forty. Spirit merchants pay £30 in the metropolitan district and £20 elsewhere. For renewals of these licenses the annual fees are assessed by the Licenses Reduction Board at the rate of 5 per cent. of the amount spent by the licensees in the purchase of liquor during the preceding calendar year; except that spirit merchants do not pay on the liquor sold by them to persons licensed to sell liquor, and they pay a minimum fee of £30 in the metropolitan district and £20 elsewhere. The owner of the premises is liable for two-fifths of the fee, but if his share exceeds one-third of the rent he may obtain a refund of part or the whole of the excess as determined by the Board.

The fees for licenses in respect of railway refreshment rooms are assessed at the same rate as those for publicans' licenses, but the Railway Commissioners do not pay the fees assessed for those refreshment rooms for which Australian wine licenses only are issued.

The fees assessed for the various classes of licenses, for which fees are based on the purchases by the licensees during the preceding year, amounted to £194,748 in 1927, to £472,782 in 1928, and to £479,120 in 1929:—

Licenses:	License fees assessed.			
	1926.	1927.	1928.	1929.
	£	£	£	£
Publicans'	163,173	172,313	448,414	454,752
Club	3,457	3,604	3,836	4,041
Railway Refreshment	1,250	1,371	2,554	2,159
Packet	50	54	41	44
Australian Wine	6,950	7,178	7,264	6,971
Spirit Merchants'	9,684	10,228	10,673	11,153
Brewers'	325	300	275	309
Booth or Stand	4,960	4,896	6,412	7,070

In addition to the annual license fees, compensation fees were payable by holders of publicans' and Australian wine licensee during 1926. The

increase in the assessments in 1928 was due to an increase in the rate for renewals, viz., from 2 per cent. to 5 per cent. of the amount expended in purchasing supplies.

Brewers pay £50 per annum in the metropolitan district and £25 in other districts. For booth and stand licenses, which are temporary permits granted to licensed publicans for the sale of liquor at places of public amusement, fees have been charged at the rate of £2 for each period up to seven days. This fee was altered in June, 1928, to £2 per day.

The Liquor Act of 1922 prescribes that all licenses, except booth and stand, must be renewed on 1st July of each year. Previously they were current for the term of one year from the date on which they were granted.

Consumption of Intoxicants.

It is estimated that the consumption of intoxicating liquors in New South Wales during the year ended June, 1930, was as follows:—Spirits, 1,005,000 proof gallons; beer 26,108,000 gallons; and wine, 1,785,000 gallons. The quantity of spirits was less by 71,400 gallons than in the previous year, beer was reduced by 3,523,000 gallons, and wine increased by 1,000 gallons.

The figures show the proof alcoholic contents of the beverages sold as spirits, and the actual quantities would be at least 25 per cent. greater. Proof spirit means spirit of a strength equal to that of pure ethyl alcohol compounded with distilled water so that the resultant mixture at a temperature of 60 deg. Fahrenheit has a specific gravity of 0.91976 as compared with that of distilled water at the same temperature. Whisky and brandy of the best quality are retailed usually at about 23.5 per cent. under proof, and gin and rum at about 30 per cent. under proof. The standards under the Pure Food Act are whisky and brandy 25 per cent. under proof, gin and rum 35 per cent. under proof.

The natural strength of Australian wines is from 26 per cent. to 28 per cent. of proof spirit. The strength of wines offered for sale is 35 per cent. of proof spirit in the case of fortified wines, e.g., port, claret, sherry; and from 20 to 24 per cent. in the case of dry wines, such as hock, chablis.

The consumption of spirits, Australian and imported, in various years since 1901 is estimated to have been as follows:—

Year.	Aggregate Consumption of Spirits.			Per Head of Population.		
	Australian.	Foreign.	Total.	Australian.	Foreign.	Total.
	proof gallons.	proof gallons.	proof gallons.	proof gallons.	proof gallons.	proof gallons.
1901	12,400	1,233,300	1,245,700	.01	.89	.90
1911	194,300	1,337,800	1,532,100	.12	.80	.92
1920-21	451,100	456,500	907,600	.22	.21	.43
1925-26	489,800	670,100	1,159,900	.21	.29	.50
1926-27	493,500	639,100	1,132,600	.21	.27	.48
1927-28	487,400	666,000	1,153,400	.20	.28	.48
1928-29	468,500	607,900	1,076,400	.19	.25	.44
1929-30	449,000	556,000	1,005,000	.18	.22	.40

The consumption of spirits per head in 1920-21 was 53 per cent. lower than in 1911. The decline has been in the quantity of foreign spirits, as more Australian spirits are consumed now than formerly. The recent figures indicate only a slight variation in consumption and the average remains much lower than in the earlier years.

The consumption of beer as estimated for 1901 and subsequent years is shown below:—

Year.	Quantity of Beer consumed.			Per Head of Population.		
	Australian.	Imported.	Total.	Australian.	Imported.	Total.
	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
1901	13,118,800	1,757,900	14,876,200	9·60	1·28	10·88
1911	18,332,900	1,200,100	19,533,000	11·01	·72	11·73
1920-21	25,163,500	129,800	25,293,300	12·04	·06	12·10
1925-26	25,946,000	144,000	26,090,000	11·29	·06	11·35
1926-27	27,698,000	143,000	27,841,000	11·79	·06	11·85
1927-28	28,167,000	158,000	28,325,000	11·73	·07	11·80
1928-29	29,475,000	156,000	29,631,000	12·04	·06	12·10
1929-30	25,975,000	133,000	26,108,000	10·48	·05	10·53

The consumption of beer per head in 1928-29 was equal to the average of the year 1920-21 and 11 per cent. greater than in 1901. Nearly all the beer consumed is brewed in Australia.

The wine entering into consumption in New South Wales is chiefly the produce of Australian vineyards, less than 2 per cent. being imported.

Year.	Consumption of Wine.					
	Aggregate.			Per Inhabitant.		
	Australian.	Foreign.	Total.	Australian.	Foreign.	Total.
	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
1901	700,000	94,000	794,000	·51	·07	·58
1911	908,700	57,900	966,600	·55	·03	·58
1920-21	1,480,100	21,500	1,501,600	·71	·01	·72
1925-26	1,466,000	31,000	1,497,000	·64	·01	·65
1926-27	1,641,000	48,000	1,689,000	·70	·02	·72
1927-28	1,721,000	31,000	1,752,000	·72	·01	·73
1928-29	1,753,000	31,000	1,784,000	·72	·01	·73
1929-30	1,752,000	33,000	1,785,000	·71	·01	·72

The consumption of wine per head of population is 25 per cent. greater now than in 1911.

The following statement shows the consumption per head of intoxicating liquors in Australia and New Zealand at the latest date for which the information is available:—

Country.			Spirits.	Wine.	Beer.
			gallons.	gallons.	gallons.
New South Wales	...	1929-30	40	72	10·53
South Australia	...	1929-30	22	75	8·75
Western Australia	...	1927-28	42	1·09	15·14
Tasmania	...	1927-28	23	20	7·88
Australia	...	1928-29	38	50	11·31
New Zealand	...	1928	35	14	9·23

Expenditure on Intoxicants.

The amount of money expended by the public on intoxicating liquors in New South Wales in the year ended 30th June, 1930, is estimated to have been £14,500,000, or £5 17s. per head. The expenditure, as estimated for various years since 1901, is shown below:—

Year.	Expenditure on Intoxicants.		Year.	Expenditure on Intoxicants.	
	Total.	Per Head of Population.		Total.	Per Head of Population.
	£	£ s. d.		£	£ s. d.
1901	5,000,000	3 13 2	1926-27	13,220,000	5 12 7
1911	5,962,000	3 11 7	1927-28	13,607,000	5 13 4
1920-21	11,034,000	5 5 7	1928-29	13,849,000	5 13 2
1925-26	12,633,000	5 9 11	1929-30	14,500,000	5 17 0

The increase in the expenditure between 1911 and 1920-21 was due mainly to higher prices, though there was also an increase in consumption of beer and of wine. There was a decline between 1920-21 and 1923-24 owing to diminished consumption of beer and wine, and the average expenditure per head did not regain the former level until 1925-26, when there was a general increase in the quantity consumed, and a rise in the price of imported whisky in consequence of an addition of 5s. per gallon to the rate of Customs duty. The subsequent increase until 1929-30 was due to the larger quantities of beer and wine consumed rather than to higher prices.

Drunkenness.

Persons apprehended by the police for drunkenness in public places may be charged in the Courts of Petty Sessions. Since September, 1916, it has been the practice in the metropolitan police district to release such persons before trial if they deposit as bail an amount equal to the usual penalty imposed. If they do not appear for trial the deposits are forfeited, and further action is not taken.

During the year 1929 the number of persons charged with drunkenness was 33,819, of whom 2,498 were females. In the cases of 632 males and 51 females the charges were withdrawn or dismissed, 19,769 males and 1,330 females were convicted after trial by the Courts, and 10,920 males and 1,117 females, who did not appear for trial, forfeited their bail. The

following statement shows the number of convictions for drunkenness, including the cases in which bail was forfeited, during each of the five years, 1925 to 1929.

Year.	Convictions.		Bail Forfeited.		Total Cases.			Cases per 1,000 of mean population.
	Males.	Females.	Males.	Females.	Males.	Females.	Total.	
1925	18,795	1,416	8,928	1,021	27,723	2,437	30,160	13.25
1926	18,736	1,202	10,238	1,185	28,974	2,387	31,361	13.51
1927	19,013	1,035	11,461	1,140	30,474	2,175	32,649	13.75
1928	19,769	1,172	12,975	1,239	32,744	2,411	35,155	14.49
1929	19,769	1,330	10,920	1,117	30,689	2,447	33,136	13.44

Relatively to the population, the number of convictions for drunkenness in 1928 was the highest since 1923. A decline of 7 per cent. occurred in the following year.

The Treatment of Inebriates.

The Inebriates Act was designed to provide treatment for two classes of inebriates—those who have been convicted of an offence, and those who have not come in this way under the cognisance of the law.

For the care and treatment of the latter class, the Act authorises the establishment of State institutions under the control of the Inspector-General of Insane. Judges, police magistrates, and the Master-in-Lunacy may order that an inebriate be bound over to abstain, or that he be placed in a State or licensed institution, or under the care of an attendant controlled by the Master-in-Lunacy, or of a guardian, for a period not exceeding twelve months. Provision is made also to enable an inebriate to enter voluntarily into recognisances to abstain.

An inebriate convicted of an offence of which drunkenness is a factor, or, in certain cases, a contributing cause, may be required to enter into recognisances for a period of not less than twelve months, during which he must report periodically to the police; or he may be placed in a State institution under the direction of the Comptroller-General of Prisons.

Special provision has been made at the State Penitentiary for men and at the State Reformatory for women detained under the Inebriates Act who have been convicted previously for other offences. During the years 1915 to 1929 those of the non-criminal class were treated at a separate establishment, also under the control of the prison authorities, the Shaftesbury Inebriate Institution. In 1929 the establishment was closed, and special arrangements were made for the treatment of inebriates in hospitals under the control of the Inspector-General of Insane, the number under his control at 30th June, 1929, being 33, viz., 16 men and 17 women.

The majority of persons admitted to the institutions for inebriates have been chronic offenders over 40 years of age. During the period dating from the first reception in August, 1907, to 30th June, 1929, the total number of original receptions amounted to 1,718—783 men and 935 women. Licenses for release numbered 2,273, viz., 952 men and 1,321 women; 297 issued to men and 533 to women were cancelled, and the licensees recommitted to institutions.

CONSUMPTION OF TOBACCO.

Under an Act passed in 1884 in connection with the imposition of an excise tax, of which most of the provisions have been superseded by Federal legislation, persons who sell tobacco in New South Wales are required to obtain a license, for which an annual fee of 5s. is charged. The number of licenses issued in 1929 was 20,871. The sale of tobacco to juveniles under the age of 16 years is prohibited.

The quantity of tobacco consumed in New South Wales, as estimated at intervals since 1901, is shown in the following statement:—

Year.	Total Consumption (000 omitted).				Per Head of Population.			
	Tobacco.	Cigars.	Cigarettes.	Total.	Tobacco.	Cigars.	Cigarettes.	Total.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1901	2,977	215	368	3,560	2·18	·15	·27	2·60
1911	3,827	271	1,076	5,174	2·30	·16	·65	3·11
1920-21	4,370	273	1,958	6,601	2·09	·13	·94	3·16
1925-26	5,263	224	2,011	7,498	2·29	·10	·87	3·26
1926-27	5,387	223	2,188	7,798	2·29	·10	·93	3·32
1927-28	5,397	215	2,335	7,947	2·25	·09	·97	3·31
1928-29	5,631	185	2,446	8,262	2·30	·08	1·00	3·38
1929-30	5,622	204	2,364	8,190	2·27	·08	·95	3·30

The quantity of tobacco (including cigars and cigarettes) consumed in 1928-29 was 8,262,000 lb., which represents an average of 6·38 per head of population, and in 1929-30 the quantity was 8,190,000 lb. and the average 3·3 lb. per head. The annual consumption per head which had been increasing slowly showed a tendency to decline in 1929-30. It is estimated that the expenditure on tobacco in 1929-30 amounted to £6,900,000, or £2 15s 8d. per head of population, as compared with £2,858,000, or £1 11s. 6d. per head in 1913.

As regards the description of tobacco used, the proportion of cigarettes advanced during the period under review from 10 to 29 per cent., and the proportion of ordinary tobacco declined from 84 to 69 per cent.

Of the total tobacco consumed in 1929-30, nearly 94 per cent. was manufactured in Australia, principally from imported leaf, viz., ordinary tobacco 98 per cent. made in Australia, cigarettes 85 per cent., and cigars 78 per cent. The proportions made in Australia in 1911 were 85 per cent., 94 per cent., and 46 per cent. respectively.

LICENSES FOR VARIOUS OCCUPATIONS.

Partly as a means of raising revenue and partly as a means of ensuring a certain amount of supervision over persons who follow callings which bring them into contact with the general public, or which are carried on under special conditions, licenses must be obtained by auctioneers, pawnbrokers, hawkers, pedlars, collectors, second-hand dealers, fishermen, and persons who sell tobacco, conduct billiard and bagatelle tables, or engage in Sunday trading. The Pistol License Act, 1927, prescribes the licensing of pistols only; licenses may not be issued to persons under 18 years of age.

Auctioneers' licenses are divided into two classes, viz., General and District, the annual fee for a general license being £15, and for each district license £2. General licenses are available for all parts of the State. District licenses only cover the police district for which they are issued, and they are not issued for the Metropolitan district. Auctioneers' licenses may not be granted to licensed pawnbrokers. Sales by auction are illegal after sunset.

or before sunrise, except in the Municipality of Albury, where, under the Auctioneers' Licensing (Amendment) Act, 1915, permits may be granted to allow wool to be put up to sale or sold after sunset. Where provision has been made for reciprocity with New South Wales auctioneers resident and licensed in other Australian States may obtain general licenses in New South Wales.

For pawnbrokers' licenses an annual fee of £10 is payable. The hours for receiving pledges are limited, with certain exceptions, to those between 8 a.m. and 6 p.m., but a restriction is not placed on the rate of interest charged.

The following table shows the principal licenses issued in the five years 1925-1929:—

Occupation.	1925.	1926.	1927.	1928.	1929.
Auctioneers—General	326	335	339	403	360
District	1,824	1,678	1,775	1,623	1,753
Billiard	801	800	727	717	723
Tobacco	20,054	20,023	20,508	21,159	20,871
Pawnbrokers	101	99	100	100	100
Hawkers and Pedlars	2,959	2,675	2,885	3,132	3,295
Collectors	1,614	1,094	1,585	1,824	2,118
Second-hand Dealers	1,176	1,573	1,099	1,146	1,058
Sunday Trading	9,244	9,609	9,797	10,410	11,014
Fishermen	2,998	2,930	2,832	3,390	3,198
Fishing Boats	1,711	1,663	1,594	1,825	1,655
Oyster Vendors	343	341	327	373	362
Gun or Pistol Licenses (ordinary)	46,776	40,924	15,082	9,187	11,409
" " (special)	29,164	25,677	6,501	102	121
Gun or Pistol Dealers	527	532	281	109	95

A law was enacted in 1927 with the object of preventing the improper use of such drugs as opium, morphine, and cocaine. Registered medical practitioners, pharmacists, dentists, etc., are authorised generally to use the drugs in the conduct of their profession or business, but other persons must obtain a license to manufacture, distribute, or have possession of them. Particulars of these licenses are shown on page 422.

STATUS OF WOMEN.

In New South Wales women have the right to exercise the franchise and sex does not disqualify any person from acting as member of the Legislative Assembly, as member of a council of any shire or municipality, as judge, magistrate, barrister, solicitor, or conveyancer, or as member of the Legislative Council. Women have contested Parliamentary elections, and one was elected in 1925. Many women have been appointed justices of the peace, and some have been admitted to the practice of the legal profession. They are eligible for all degrees at the University of Sydney, but are not ordained as ministers of religion. Women may not act on juries.

The employment of women in factories and shops is regulated specially by the Factories and Shops Act, 1912, and its amendments, which limit the continuous employment of women to five hours, restrict the time they may be employed in excess of forty-eight hours per week and between 6 p.m. and 6 a.m., also the weight they may be allowed or required to lift, and prohibit the employment of girls under 18 years of age in certain dangerous occupations. The minimum wage for any employee in a factory or shop is fixed at 4s. per week. Many trade unions have women members. A separate living wage for women employees is determined after special

inquiry by an industrial tribunal, but a definite principle of equality or difference between the pay of women and men is not observed in the industrial awards and agreements. In accordance with the Industrial Arbitration Act, the list of matters which may be determined by the industrial tribunals includes claims that the same wage be paid to men and women performing the same work, or producing the same return of profit or value to their employer.

A legal age of marriage has not been defined, but the average age at which women marry is about 25 years. The consent of a parent or guardian is necessary to validate the marriage of minors. The wife of a British subject is deemed to be a British subject throughout Australia. Under the Married Women's Property Act, 1901, a married woman is capable of holding, acquiring, or disposing of any real or personal property as her separate property in the same manner as if she were a *femme sole*. Her property is not liable for her husband's debts, and her earnings in any occupation apart from her husband's are her own. A wife, however, has no legal share of her husband's income, nor in any property acquired by their joint efforts after marriage, but the husband is liable for all necessary expenses of his wife and children.

RELIGIONS.

In New South Wales there is no established church, and freedom of worship is accorded to all religious denominations.

The numbers of adherents of the principal religions, as disclosed by the census records, are shown in previous issues of this Year Book.

EDUCATION.

IN New South Wales there is a State system of national education which embraces primary, secondary, and technical education, and there are numerous private educational institutions, of which the majority are conducted under the auspices of the religious denominations. The University of Sydney is maintained partly by State endowment and partly by moneys derived from private sources.

The Public Instruction Act of 1880, as amended by the Free Education Act, 1906, the Bursary Endowment Act, 1912, and the Public Instruction (Amendment) Acts of 1916 and 1917, is the statutory basis of the State system. This system aims at making education secular, free and compulsory, each of these principles being enjoined by statute. The Act of 1880 provides that "the teaching shall be strictly non-sectarian, but the words 'secular instruction' shall be held to include general religious teaching as distinguished from dogmatical or polemical theology." General religious instruction is given by teachers, and special religious instruction for limited periods, with the consent of parents, by ministers of religion. The Free Education Act, 1906, provides that education in State primary schools must be free. Secondary schools also have been free since the beginning of 1911, except during a period of eighteen months from 1st January, 1923. The Act of 1880 prescribed that children between the ages of 6 and 14 must attend school, and the amending Act of 1916 raised the compulsory age at beginning to 7 years and made provision for more stringent enforcement of attendance.

The State system is subject to central guidance and control, being administered by a responsible Minister of the Crown, through a permanent Director of Education. Practically the whole of the State expenditure on education is provided by appropriation from the Consolidated Revenue Fund, but part of the expenditure on buildings, additions, and renewals, has been defrayed from the Public Works or Loan Funds.

The private schools are not endowed by the State, but, with few exceptions, they are subject to State inspection. If children of statutory school age are enrolled at a private school it must be certified as efficient in terms of the Public Instruction (Amendment) Act of 1916, and private schools supplying education for State bursars must be registered under the Bursary Endowment Act of 1912. The fact that the school examinations, which mark the various stages of primary and secondary education, are based on the curricula of the State system tends towards uniformity in the teaching of the subjects covered by the examinations.

The school medical service organised by the State for the benefit of children attending both State and private schools, and the school for backward children at Glenfield have been described in the preceding chapter of this volume.

The complete scheme of education provides a direct avenue from Kindergarten to University. In the State schools kindergarten classes are conducted under the Montessori method. Many private schools make provision for kindergarten, and an organisation known as the Kindergarten Union of New South Wales conducts a school for training in Fröbelian methods, and maintains free kindergarten schools and playgrounds in the more congested parts of the metropolitan area.

The course in the primary schools supplies education of a general character in such subjects as English, mathematics, nature knowledge, civics and morals, art and manual work. Beyond the primary stage, the courses assume a vocational bias. The pupil may continue his general education and at the same time enter upon a course of training to fit him for the occupation he intends to follow after leaving school. In the selection of the super-primary course an important consideration is the probable length of the school life of the individual pupil. At high schools the full course leading to professional occupations or to tertiary education at the University and elsewhere extends over a period of five years. Shorter courses are provided for those who will probably leave school at an earlier stage. A vocational guidance bureau has been organised for the purpose of assisting boys leaving State schools to obtain employment in occupations for which they are best fitted.

Preparatory education for commercial pursuits is provided at commercial schools and at high schools where economics, shorthand, business principles and practice are included in the curriculum. At the University there is a degree course in economics and a diploma course in commerce. A lectureship in Japanese language has been established by means of a special grant to the University from public revenue of the Commonwealth to assist in the teaching of languages serviceable to the development of commercial relations between Australia and other countries.

Industrial training, commenced in the form of manual training in the primary course, may be continued at continuation schools, and at the trades schools and technical colleges. Training in domestic subjects is a feature of the schools for girls, advanced courses being provided at the schools under the technical system. At the University there is a school of domestic science.

Special attention is directed towards education in subjects pertaining to rural industries, and an organiser has been appointed to develop the system in State schools. At district rural schools boys may acquire basic knowledge of agricultural science, rural economics, etc., and there are two high schools—at Glenfield and Yanco—where the studies are arranged for boys who intend to become farmers. The school at Glenfield is known as the Hurlstone Agricultural High School. Its grounds cover 100 acres and those at Yanco 629 acres. The course includes general education as well as scientific training with laboratory practice and field work, and it leads to higher courses at the Hawkesbury Agricultural College.

Advanced training in agriculture, dairying, etc., is provided for farmers and students at the Hawkesbury Agricultural College and at experiment farms in various districts. Particulars of these institutions are published in the chapter relating to agriculture.

The final stages of education for rural pursuits are reached at the University, where there is a degree course in agriculture, and in veterinary science.

CENSUS RECORDS.

Particulars of the numbers of persons receiving education and of those who had acquired the rudiments of education (reading and writing) as recorded as at the censuses of 1901, 1911, and 1921 are shown in the Year Book for 1922 at pages 148-150.

An indication that illiteracy is unusual in New South Wales may be deduced from the fact that there are few mark signatures in the marriage registers. The number in 1928 represented less than two per 1,000 of the persons married.

SCHOOLS AND TEACHING STAFFS.

The following table shows the total number of public and private schools in operation at the end of 1901, 1911, 1921 and the past five years, and the aggregate teaching staff in each group. The figures in this table, and in the subsequent tables relating to public and private schools, include secondary schools, but are exclusive of evening continuation schools, technical colleges and trade schools, free kindergarten and other schools maintained by charitable organisations, shorthand and business colleges, etc.

Year.	Schools.			Teaching Staffs.							Grand Total.
	Public. *	Private.	Total.	In Public Schools.*			In Private Schools.				
				Men.	Women.	Total.	Men.	Women.	Total.		
1901	2,741	890	3,631	2,829	2,318	5,147	337	2,303	2,640	7,787	
1911	3,107	757	3,864	3,165	3,034	6,199	366	2,262	2,628	8,827	
1921	3,170	677	3,847	3,554	5,118	8,672	465	2,463	2,928	11,600	
1926	3,125	704	3,829	4,256	5,801	10,057	517	2,647	3,164	13,221	
1927	3,087	713	3,800	4,311	5,978	10,289	546	2,753	3,281	13,570	
1928	3,103	721	3,824	4,466	6,203	10,669	586	2,742	3,328	13,997	
1929	3,104	726	3,830	4,624	6,368	10,992	639	2,780	3,419	14,411	

* Including subsidised schools.

The number of teachers shown above excludes, in the case of public schools, students in training, who numbered 1,333 in 1928 and 1,408 in 1929. In the case of private schools, visiting or part-time teachers, viz., 353 men and 875 women in 1929 are excluded, as some of them attended more than one school and were included in more than one return.

In the State schools the men employed as teachers outnumbered the women until 1912, but the proportion of men in 1929 was only 42 per cent. of the total. In the private schools the proportion of men teachers has been small always, and in 1929 it was less than 19 per cent. of the full-time teaching staffs of private schools.

SCHOOL PUPILS.

A comparative review of the enrolment of children at public and private schools is restricted to the last quarter in each year, as the figures in regard to private schools in the earlier years are available for that period only. The following statement shows the enrolment during the December quarter at all schools and colleges in the State, primary and secondary, other than evening continuation, charitable, and free kindergarten schools and technical, trade, and business schools and colleges* :—

Year.	Public Schools.†			Private Schools.			Total Enrolment.	Proportion of Scholars Enrolled.	
	Boys.	Girls.	Total.	Boys.	Girls.	Total.		Public Schools.	Private Schools.
								per cent.	per cent.
1901	110,971	99,617	210,588	27,163	33,674	60,837	271,425	77·6	22·4
1911	116,317	105,493	221,810	26,962	34,588	61,550	283,360	78·3	21·7
1921	163,699	151,529	315,228	35,903	42,557	78,460	393,688	80·1	19·9
1926	178,939	164,248	343,187	37,739	46,045	83,784	426,971	80·4	19·6
1927	184,017	168,293	352,310	39,213	46,871	86,084	438,394	80·4	19·6
1928	189,476	173,049	362,525	40,136	47,494	87,630	450,155	80·5	19·5
1929	193,872	177,458	371,330	42,024	48,564	90,588	461,918	80·4	19·6

* The numbers of pupils so excluded were as follows in 1929 :—Evening continuation, about 5,400 ; schools for deaf mutes, etc., 272 ; private charitable, 1,541 ; free kindergarten, 1,036 ; technical colleges and trade schools, 15,253 ; business colleges and shorthand schools, about 8,600.

† Including Subsidised Schools.

Since 1901 the enrolment in public schools has increased by 76 per cent., while in the private schools it has risen by less than 49 per cent., so that the proportion of children in public schools has advanced from 77·6 per cent. to 80·4 per cent. In the public schools there are more boys than girls, the proportion being boys 52 per cent. and girls 48 per cent. In the private schools girls are in the majority, representing 54 per cent. of the enrolment.

Considering only children for whom education is compulsory, viz., between 7 and 14 years, the following table shows the numbers and proportions taught in public and private schools, based on the enrolment in December quarter, omitting private institutional schools and free kindergartens:—

Year.	Public Schools.	Private Schools.	Total.	Proportion per cent.	
				Public Schools.	Private Schools.
1925	265,938	57,071	323,059	82·3	17·7
1926	267,407	56,934	324,341	82·4	17·6
1927	271,162	58,006	329,168	82·4	17·6
1928	277,601	58,652	336,253	82·6	17·4
1929	282,517	60,441	342,958	82·4	17·6

Apparently the proportion of children attending private schools is greater in respect of those below and above statutory school age than in respect of children in the age group 7 and under 14 years.

CHILDREN RECEIVING EDUCATION.

It is probable that a considerable number of children between the ages of 7 and 14 years, when education is compulsory, are not enrolled in schools for the whole of those years, although they may attend school for most of the statutory period. The children not enrolled in schools include those receiving instruction at home (numbering 13,181 at the Census of 1921) those exempt from further attendance for special reasons on attaining the age of 13 years, and those who are inaccessible to schools or who are mentally or physically deficient. The institution of a system of teaching isolated pupils by correspondence, the provision of facilities for conveyance, and of subsidies for private teachers of small rural schools, tend to reduce the number of children not reached by the education system.

In the following table the estimated number of children "requiring education" during the last five years is compared with the number enrolled at State and private schools:—

Year.	Estimated Number of Children of School Age in December.	Children of Other Ages Enrolled (December Quarter).	Estimated Number of Children requiring Education.	Average Weekly Enrolment during December Quarter.	Proportional Effective Enrolment (Approximate.)
					per cent.
1925	337,600	95,939	433,539	399,192	92·1
1926	336,700	102,630	439,330	403,285	91·8
1927	340,000	109,326	449,226	413,562	92·1
1928	341,500	113,902	455,402	423,573	93·0
1929	345,300	118,960	464,260	435,685	93·8

These figures indicate that the average weekly enrolment in schools exceeds 90 per cent. of the number of children "requiring education." The result of the comparison, however, is only an approximation, because the number

of "children of other ages" included in the figures is a gross enrolment, and therefore is in excess of the number of children of those ages requiring education.

The following comparison indicates the degree of regularity of attendance among children enrolled at State and private schools:—

Year.	Public Schools.			Private Schools.		
	Average Weekly Enrolment.	Average Daily Attendance.	Ratio of Attendance to Enrolment.	Average Weekly Enrolment.	Average Daily Attendance.	Ratio of Attendance to Enrolment.
1911	203,335	160,776	per cent. 79·0	*	52,122	per cent. *
1921	292,264	248,605	85·1	74,206	64,172	86·4
1926	319,835	272,287	85·1	79,363	69,205	87·2
1927	328,967	283,615	86·2	80,800	71,821	89·0
1928	339,413	290,914	85·7	83,153	73,109	87·9
1929	346,644	298,743	86·1	84,827	76,178	89·8

* Not available.

The proportion of attendance to enrolment signifies that on the average children attend less than four and a half days in a school week of five days. The ratio of attendance has increased slightly since 1921.

The attendance of children at school is affected adversely by infectious and contagious diseases, and—particularly in country districts were transport facilities are lacking—by inclement weather. The attendance of boys is slightly more regular than that of girls.

Age Distribution of Pupils.

The following table shows the age distribution of pupils enrolled at schools during the last five years. The figures represent the gross enrolment during December quarter at primary and secondary schools omitting those enumerated at the foot of page 471:—

Year.	Public Schools.				Private Schools.			
	Under 7 years.	7 years and under 14.	14 years and over.	Total.	Under 7 years.	7 years and under 14.	14 years and over.	Total.
1925	42,152	265,988	28,670	336,810	12,965	57,071	12,152	82,188
1926	46,707	267,407	29,073	343,187	14,079	56,934	12,771	83,784
1927	49,993	271,162	31,155	352,310	14,980	58,006	13,088	86,084
1928	50,977	277,601	33,947	362,525	14,850	58,652	14,128	87,630
1929	52,943	282,517	35,870	371,330	15,483	60,441	14,664	90,588

In 1929 there were enrolled 63,426 children below the statutory school age, viz., 34,626 boys and 33,800 girls; and 50,534 were over 14 years of age—26,841 boys and 23,693 girls.

More details as to the ages of children attending public primary schools may be obtained from a table published annually in the report of the Minister for Education, which shows the ages of children in the various school classes.

RELIGIONS.

Particulars of the religion of each child attending a State school are obtained upon enrolment, but such information is not available regarding pupils of private schools. Any analysis of the religions of school pupils is restricted, therefore, to a comparison of the number of children of each denomination enrolled at public schools, and the number of children (irrespective of religion) attending schools conducted under the auspices of the various religious denominations.

Such a comparative review of the aggregate enrolment in primary and secondary schools (omitting those enumerated at the foot of page 471) during the December quarter of various years is given below. The figures, being on the same plane of comparison for each year, illustrate the progress of each main type of denominational school during the period:—

Year.	Public Schools— Denomination of Children Enrolled.					Private Schools— Denomination of Schools.			
	Church of England.	Roman Catholic.	Presbyterian.	Methodist.	Other.	Church of England.	Roman Catholic.	Undenominational.	Other.
1901	109,876	31,054	23,511	24,971	21,176	3,966	41,486	13,546	1,839
1911	118,794	31,044	26,347	30,595	15,030	3,297	46,097	10,141	2,015
1921	176,998	35,532	37,497	44,210	20,991	5,265	63,060	8,131	2,004
1926	194,313	36,251	42,712	47,273	22,638	5,776	67,573	7,889	2,546
1927	199,884	37,215	44,129	48,011	23,071	6,094	69,488	7,829	2,673
1928	205,268	38,601	45,894	49,022	23,740	6,248	70,922	7,696	2,764
1929	210,286	39,614	47,232	49,447	24,751	6,097	73,846	7,521	3,124

Proportion Per Cent. of Total Number of Pupils Enrolled.

1901	40·5	11·4	8·7	9·2	7·8	1·5	15·3	5·0	0·6
1911	41·9	10·9	9·3	10·8	5·3	1·2	16·3	3·6	0·7
1921	45·0	9·0	9·5	11·2	5·3	1·4	16·0	2·1	0·5
1926	45·5	8·5	10·0	11·1	5·3	1·4	15·8	1·8	0·6
1927	45·6	8·5	10·1	10·9	5·3	1·4	15·8	1·8	0·6
1928	45·6	8·6	10·2	10·9	5·3	1·4	15·7	1·7	0·6
1929	45·5	8·6	10·2	10·7	5·4	1·3	16·0	1·6	0·7

The pupils attending Roman Catholic schools constitute approximately 81 per cent. of the pupils attending private schools and 16 per cent. of the total pupils at all schools. The proportion of children of each denomination, except Roman Catholic, attending public schools has tended to increase or has remained constant. Although the proportion per cent. of Roman Catholic children enrolled in State schools declined from 10·9 to 9·0 per cent. between 1911 and 1921, the proportion of children enrolled in Roman Catholic schools also declined from 16·3 to 16·0 per cent. of the total. This decline is coincident with a decrease in the proportion of persons of the Roman Catholic faith in the population. The increase in the proportion of children belonging to the Church of England is coincident with an increase in the proportion of persons of that faith.

The enrolment at undenominational private schools has diminished considerably since 1901.

Religious Instruction in State Schools.

The Public Instruction Act, 1880, provides that religious instruction may be given in State schools by visiting ministers and teachers of religious bodies for a maximum period of one hour in each school day, and the

following table indicates the number of lessons in special religious instruction given in primary schools during the past five years by representatives of the various denominations:—

Denomination.	Number of Lessons.				
	1925.	1926.	1927.	1928.	1929.
Church of England	46,182	46,476	46,123	51,758	55,733
Roman Catholic	2,771	2,778	3,619	3,482	3,740
Presbyterian	16,746	16,789	15,215	18,297	19,312
Methodist	21,447	21,567	20,788	24,133	25,991
Other Denominations	11,716	11,791	11,552	13,511	14,354
Total	98,862	99,401	97,297	111,181	119,130

SCHOOL SAVINGS BANKS.

A system of school savings banks in connection with State schools was commenced in the year 1887 with the object of inculcating principles of thrift amongst the children. Deposits are received by the teachers, and an account for each depositor is opened at the local branch or agency of the Government Savings Bank of New South Wales. Interest is paid on each complete pound at the rate of 4 per cent. per annum.

At 30th June, 1930, there were 1,799 school banks with 138,678 depositors and the amount at the credit of their accounts was £197,035.

STATE SCHOOLS.

The following table affords a comparison between the numbers of the various types of State schools in operation at the end of 1881, the first full year in which the Department of Education was under ministerial control, and the numbers open at later periods:—

Type of School.	Schools at end of year.					
	1881.	1891.	1901.	1911.	1921.	1929.
Primary Schools—						
Public	1,007	1,686	1,874	1,915	2,020	2,001
Provisional	227	320	398	475	477	577
Half-time	83*	280	414	271	90	44
House-to-house and Travel- ling ... ..	...	83	17	6	3	1
Correspondence ... ..	...	...	...	...	4	1
Subsidised ... ..	...	...	...	414	546	443
Evening	33	13	34	16	...	...
Industrial and Reformatory	2	3	4	2	3	3
Total—Primary	1,352	2,385	2,741	3,099	3,143	3,070
Secondary Schools—						
High ... ..	...	5	4	8	27	34
Intermediate High ... ..	...	...	...	...	25	49
District ... ..	...	...	...	...	13	15
Continuation Schools—						
Commercial ... ..	...	...	...	...	15	17
Junior Technical ... ..	...	...	...	...	26	30
Domestic ... ..	...	...	...	...	46	57
Evening ... ..	...	...	...	18	46	49
Rural Schools ... ..	...	...	...	...	...	15
Composite†	58	78	113	145	57	1,176
Total—Secondary and Con- tinuation Schools	58	83	117	171	255	1,442

* Including Third-time Schools.

† Superior Public Schools.

The number of individual schools at the end of 1929 was 3,153, which is less than the foregoing figures indicate, owing to the fact that with the exception of high schools the majority of secondary schools are conducted in conjunction with primary schools.

It is the policy of the State educational authorities to supply as far as practicable the demand for post primary education. As a result there has been a rapid increase in the number of country schools where composite courses are provided to enable pupils to progress beyond the primary stage. The figures in the table are exclusive of a number of small country schools where, by means of lesson sheets and with the assistance of the teacher, pupils may secure a year's course of super-primary instruction.

State Primary Schools.

Primary work in its various stages is undertaken in State schools classified broadly into three groups,—(a) Primary and superior schools in more or less populous centres; (b) schools in isolated and sparsely settled districts, viz., provisional, half-time, and subsidised schools; and (c) a correspondence school instructing children so isolated as to be unable to attend school.

A public school may be established in any locality where the attendance of twenty children is assured. In most schools boys and girls are taught together, but schools with an average attendance of 360 pupils are divided into two departments, and those with an attendance exceeding 600 into three departments, viz., boys, girls, and infants.

The infants' course extends over a period of two years. The primary course for older children is completed generally between the ages of 13 and 14 years.

Small schools are not established where it is convenient to arrange for the daily conveyance to a central school of the pupils from the surrounding neighbourhood. In such cases local committees consisting of parents, the teacher of the central school, and other persons of repute, are required to assume responsibility for arranging and supervising the carriage of the children, and the cost of conveyance is defrayed by the Department according to fixed rates. Attendance at central schools is encouraged also by means of subsidies which may be paid under certain conditions as an aid towards boarding children with relations or friends in a township for the purpose of attending school. The amounts expended for conveyance and boarding allowances during the years 1928 and 1929 were £56,884 and £51,195 respectively.

Provisional schools are maintained where there is an attendance of at least ten pupils, and where doubt exists as to the permanence of the settlement. At the end of 1929 there were 577 such schools in operation with an effective enrolment of 11,454 pupils.

Half-time schools are established where a number of children sufficient to maintain a minimum attendance of ten pupils can be collected in two groups, not more than 10 miles apart. One teacher divides his time between the two groups, so arranging that home-work and preparatory study shall occupy the time of each pupil in his absence from either school. The number of half-time schools at the end of 1929 was 44, and the number of pupils enrolled was 574. The course of instruction in provisional and half-time schools follows the course of full-time schools.

There is one travelling school which visits localities where families are so isolated that two cannot combine readily for the education of the children. The teacher is provided with a vehicle to carry school requisites, and a tent for use as a schoolroom, in which to teach for a week at a time at each centre in his circuit. Formerly there were a number of travelling schools, but in recent years teaching by correspondence has been developed as a more satisfactory method of educating children in isolated localities. The pupils who are being taught by correspondence are organised as one school, and the course of instruction is the ordinary primary course. A pupil is not admitted before he reaches the age of 7 years and the young children are taught by kindergarten teachers. About 4,240 children were receiving primary education by correspondence in 1929.

Another type of school for the benefit of families in remote districts is the subsidised school, which may be formed where there is a single family with at least four children of school age or where two or more families combine to engage a teacher. The teacher, if approved by the Department of Education, is paid an annual subsidy at a rate based on the average attendance, viz., in the eastern portion of the State £5 per pupil up to a maximum of £70, and in the western division £6 per pupil up to £80. The course is as far as practicable the same as in primary schools, and the subsidised schools are subject to inspection by the State school inspectors. A subsidised school may be established by a single family with at least four children of school age. The number of subsidised schools in 1929 was 443 and there were 3,291 pupils on the roll.

Secondary Education in State Schools.

The number of pupils receiving secondary education at State schools at intervals since the year 1916 is shown in the following statement. The secondary schools consist of high, intermediate high, district, day continuation and rural schools. Particulars relating to evening continuation schools are not included, but are shown later:—

Year.			Secondary Schools.			Super-Primary Courses at Primary Schools.		
			Schools.	Gross Enrolment.	Average Daily Attendance.	Schools.	Effective Enrolment.	Average Attendance.
1916	...	...	133	13,961	9,732	*	*	*
1921	...	...	152	26,728	18,680	57	1,530	1,281
1926	...	...	202	45,137	32,505	682	4,178	3,583
1927	...	...	210	47,521	35,274	740	4,219	3,670
1928	...	...	210	54,518	39,964	826	4,275	3,708
1929	...	...	217	56,194	42,218	1,175	5,690	4,804

* Not available.

The average daily attendance of pupils attending secondary schools has increased more than fourfold since 1911.

Composite courses are provided at primary schools in country districts where secondary schools are not readily accessible. The courses lead to the intermediate certificate, the commercial superior public school certificate and the Public Service entrance examinations.

Admission to State High Schools is gained by competitive examination, and only qualified pupils are allowed to enter. The courses of instruction cover five years, leading to the Leaving Certificate Examination,

at which candidates may matriculate. The courses of instruction at Intermediate High and District Schools cover the first three years of that course, leading to the Intermediate Certificate Examination. The courses are for the most part educational only, but the Intermediate and Leaving Certificates are generally accepted as proof of sufficient educational qualification for admission to the Public Service, the teaching profession, banks, and kindred bodies.

At the end of 1929 there were ten High Schools in the metropolitan area (including a Technical High School) and twenty-four in the country districts providing a full course of instruction. There were forty-nine Intermediate High Schools, twenty-seven being in the country, and fifteen District Schools.

The following particulars relate to High Schools and Intermediate High Schools maintained by the State. In addition to the holders of bursaries as shown in the table there were 256 holders of scholarships in 1911. In recent years scholarships have not been awarded, all pupils being supplied with text-books free of cost.

Year	High Schools.	Inter- mediate High Schools.	Teachers.			Pupils.			Bur- saries.
			M.	F.	Total.	Enrolment.		Average Attend- ance.	
						Total.	Average Weekly.		
1901	4	...	16	11	27	676	526	489	+
1911	8	...	59	38	97	2,293	1,864	1,786	201
1921	27	25	349	299	648	14,247	12,199	11,253	1,005
1926	30	38	434	365	799	18,460	16,867	15,576	805
1927	30	39	487	393	885	19,852	17,913	17,089	815
1928	31	47	553	475	1,028	23,576	21,596	20,074	850
1929	34	49	594	525	1,119	25,376	23,778	22,026	881

† Not available.

The rapid expansion in secondary schools affords evidence of a widespread desire for education among the people.

Training in commercial subjects is provided in Commercial Continuation Schools and a preparatory course leading to the trade courses under the technical system is given in Junior Technical Continuation Schools. At these schools boys may continue for a period of three years elementary courses commenced in primary schools in commercial subjects and in manual training respectively. In the Junior Technical Schools the subjects are essentially of a practical nature, viz., practical drawing and workshop practice, English, practical mathematics, history and civics, industries and elementary science. The courses in English, mathematics, and history are on the same standard as in High Schools.

With a view to placing in suitable employment boys who have satisfactorily completed the course in the Junior Technical Schools, an Employment Bureau has been established by the Department of Education. Details are kept of each pupil's mental and physical capacity, character, and educational proficiency, as well as of the nature of employment he desires. Endeavour is being made to establish co-operation between employers and the schools.

The Continuation Schools for girls are known as Domestic Continuation Schools. The syllabus provides for a course commencing at the end of the primary school stage and extending over three years. The course during the first two years is of a domestic and general educational

character, embracing English, arithmetic, history, civics, and morals, art and home decoration, botany and practical gardening, needlework, cookery, laundry, home management, hygiene, care of infants and care of the sick. The third year course is of a commercial character and provides for further studies in English and arithmetic to which is added elementary training in business principles, shorthand and typewriting. This course has gained the recognition of commercial houses.

Candidates successful in the annual domestic science examination may enter upon the home economics course at the Technical College.

Since 1920 there has been a rapid growth in the attendance at superior schools of the domestic type. In that year forty-seven such schools were in operation with a gross enrolment of 4,920 super-primary pupils and an average attendance of 2,829. In 1929 the corresponding numbers were fifty-seven schools, gross enrolment 13,543, and average daily attendance 9,143.

Rural Schools are conducted in conjunction with the primary schools in country centres. At each of these schools super-primary courses are provided extending over a period of three years in general subjects and in elementary agriculture, agricultural nature study, applied farm mechanics, rural economics and horticulture.

The following table provides a comparison of the number of continuation schools and the gross enrolment during each of the last five years:—

Year.	Day Continuation Schools.						Rural Schools.	
	Commercial.		Junior Technical.		Domestic Type.			
	No.	Gross Enrolment.	No.	Gross Enrolment.	No.	Gross Enrolment.	No.	Gross Enrolment.
1925	15	1,941	29	7,699	57	11,896	15	1,260
1926	18	2,341	30	8,481	57	12,506	15	1,346
1927	20	2,565	31	8,460	60	12,938	15	1,535
1928	17	2,719	31	10,040	56	14,195	15	1,767
1929	17	2,693	30	9,956	57	13,543	15	1,762

The average attendance during 1929 was as follows:—Commercial 1,844, junior technical 6,851, domestic 9,143, rural, 1,230.

Evening Continuation Schools.

Evening Continuation Schools for the benefit of pupils who leave school to engage in occupations at the termination of the primary course are organised on the same lines as the Day Continuation Schools. The courses, which extend over a period of two years, are similar, though they are modified for pupils who work during the day, and attend the classes for only a few hours per week. An Evening Continuation School may be established in any centre where the number of students who will guarantee to attend for two years is sufficient. A fee of 6d. per week is charged, but it is refunded at the end of each year to the students whose conduct and attendance have been satisfactory. The average age of the pupils attending the Evening Continuation Schools is 18 years.

The following is the record of the Evening Continuation Schools in the years 1928 and 1929:—

Classification.	1928.			1929.		
	Number of Schools.	Average Weekly Enrolment.	Average Attendance.	Number of Schools.	Average Weekly Enrolment.	Average Attendance.
Junior Technical (Boys)...	19	1,937	1,553	18	2,113	1,691
Commercial (Boys) ...	21	2,013	1,527	21	2,345	1,802
Domestic (Girls) ...	14	810	560	10	969	653
Total ...	54	4,760	3,640	49	5,427	4,179

PRIVATE SCHOOLS.

The position of private schools in the education system of the State is discussed on a previous page.

By virtue of the Public Instruction (Amendment) Act of 1913, children between the ages of 7 and 14 years must be provided with efficient education, and a school is not recognised as efficient unless it is certified by the Minister of Education, who takes into account the standard of instruction, the qualifications of the teachers, the suitability of the school premises, and the general conduct of the school. This provision applies to both primary and secondary schools where children of statutory ages are educated. The conditions upon which benefits under the Bursary Endowment Act are extended to private secondary schools involve a similar inspection and certification, and nearly all of them have been registered by the Department of Education. The standards of instruction required of private schools under both Acts are the same as those of public schools of similar grade and situation.

The total number of private schools certified by the Minister for Education in April, 1929, was 804. Of these, 641 were certified under the Public Instruction (Amendment) Act of 1916, including 55 which were certified for the instruction of children up to a specified age only; 100 secondary schools were registered under the Bursary Endowment as efficient to provide the full secondary course; and 63 were recognised officially as qualified for the education of pupils to the Intermediate Certificate stage of the secondary course.

The following table shows particulars of the schools of each denomination in 1928 and 1929:—

Classification.	1928.				1929.			
	Schools.	Teachers.	Enrolment December Quarter.	Average Daily Attendance.	Schools.	Teachers.	Enrolment December Quarter.	Average Daily Attendance.
Undenominational ...	133	447	7,696	6,562	134	467	7,585	6,680
Roman Catholic ...	508	2,347	70,922	58,599	511	2,387	73,846	61,109
Church of England ...	59	373	6,248	5,540	57	377	6,097	5,557
Presbyterian ...	6	80	1,333	1,154	9	100	1,599	1,475
Methodist ...	5	62	1,024	915	5	66	1,074	1,048
Lutheran ...	3	3	83	71	3	3	76	69
Seventh Day Adventist	7	16	324	268	7	19	311	260
Total ...	721	3,328	87,630	73,109	726	3,419	90,588	76,178

The number of teachers, as shown in the table, does not include those who visit schools to give tuition in special subjects only. It is not possible

to ascertain the number of individuals represented by these figures, because the number of teachers who give instruction in more than one school is not recorded.

Fees are usually charged at private schools, but they vary considerably in amount. In some denominational schools the payment of fees is to some extent voluntary, and a number of scholarships and bursaries have been provided by private subscriptions for the assistance of deserving students.

Some of the private schools are residential. In 1929 there were 81,689 day scholars and 8,899 boarders.

The following statement shows the number of secondary pupils enrolled during the December quarter in each of the last five years:—

Year.	Schools.	Secondary Pupils Enrolled.		
		Boys.	Girls.	Total.
1925	234	5,480	6,799	12,279
1926	264	5,809	6,979	12,788
1927	295	6,451	7,523	13,974
1928	307	6,896	7,721	14,617
1929	314	7,388	8,364	15,752

The number of secondary pupils in private schools has shown a considerable increase. The pupils so enumerated are defined as those who follow a course of instruction similar to that laid down in the syllabus for secondary schools by the Department of Education. There are, however, in private schools a considerable number of pupils over 14 years of age not recorded as secondary pupils in the returns supplied. Some of these attend business colleges for commercial education while others follow super-primary courses.

Private Charitable Schools.

In addition to the private schools to which the foregoing tables relate, there are schools connected with charitable institutions or organisations, which are certified under the Public Instruction (Amendment) Act of 1916 for the education of children of statutory school age. There were 15 such schools in 1928. Thirteen were under the auspices of the Roman Catholic Church, 1 Church of England, 1 Salvation Army. The gross enrolment at these institutional schools during 1929 was 1,897.

The Kindergarten Union maintains in the city and suburbs sixteen free kindergarten schools and playgrounds for children under statutory school age. In 1929 there were enrolled 1,649 scholars, and the average daily attendance was 801. The organisation receives a State subsidy of £1,000 per annum.

The education of deaf and dumb and blind children is undertaken at two schools in connection with the Institution for the Deaf and Dumb and the Blind, which is endowed by the State. At the end of 1929 there were 175 children in the institution. Deaf mutes are trained also at two Roman Catholic institutions, one at Waratah for girls, with 47 inmates at the end of 1929, and the other, established at Castle Hill, where 50 boys were enrolled.

The total number of private charitable schools in 1929 was 35, and there were 186 teachers. The gross enrolment during the year was 3,829, and the average daily attendance 2,420. In December quarter there were 2,849 scholars on the roll, of whom 1,311 were under 7 years of age, 1,403 between 7 and 14 years, and 135 over 14 years.

Enrolment in Private Schools.

A comparative statement of the enrolment in private schools (including those schools at private charitable institutions) is shown below. The enrolment at Kindergarten schools and playgrounds is not included.

Year.	Scholars on Roll during December Quarter.								Total.*
	Un-denominational.	Roman Catholic.	Church of England.	Presbyterian.	Methodist.	Seventh Day Adventist.	Lutheran.	Salvation Army.	
1911 ...	11,097	46,656	3,397	370	311	213	34	...	62,078
1921 ...	8,496†	63,486	5,417	788	605	301	51	163	79,307
1926 ...	8,046	68,856	5,919	1,168	982	308	88	63	85,430
1927 ...	7,992	70,945	6,223	1,217	1,004	356	96	58	87,891
1928 ...	7,865	72,349	6,409	1,333	1,024	324	83	62	89,449
1929 ...	7,760	75,311	6,220	1,599	1,074	311	76	50	92,401

*Includes schools at private charitable institutions.

†Includes 96 scholars at Theosophical school.

Between 1911 and 1929 the enrolment in private schools increased by 30,323 or 49 per cent. In undenominational schools there was a marked decline, but all groups of denominational schools have expanded. The enrolment in Roman Catholic schools, which constitute the great majority of the private establishments, has increased by 61 per cent. since 1911.

SCHOOL EXAMINATIONS.

To test the proficiency of students who have completed the primary course and those who are attending higher courses, a system of public examinations has been organised by the Department of Education with the concurrence of the University authorities, who accept as evidence of satisfactory educational qualification appropriate certificates issued by the Department. The University also holds an annual matriculation examination, on the results of which a number of University scholarships and prizes are awarded.

The regulations of the Department of Education provide for the issue of certificates which mark definite stages in the progress of school pupils. The Qualifying Certificate indicates that the holder has completed the primary course satisfactorily, and is fitted to enter upon a secondary course of instruction. Prior to 1922, every pupil was required to pass a written examination in order to obtain a Qualifying Certificate. Since that year the certificates are awarded to pupils of the sixth class who, in the judgment of the local inspector, have attained satisfactory results at school tests applied at intervals during each year by the principal of the school. The written test is applied only to pupils who desire to compete for admission to High Schools or for bursaries tenable at Secondary Schools.

The Superior Public School Certificate is issued to successful candidates at a written examination terminating the continuation course of instruction of either two or three years, the certificate for the three years course being the equivalent of the Intermediate Certificate.

The Intermediate Certificate marks the satisfactory completion of the first three years of the secondary course. The Leaving Certificate is obtainable on graduation from the full five-years' secondary course, and is accepted as indicative of adequate preparation for the University, if it shows a pass in matriculation subjects.

The Board of Examiners in connection with the Intermediate and Leaving Certificates consists of four delegates appointed by the University, and four officials of the Department of Education, viz.: The Director of Education, the Chief Inspector, the Principal of the Teachers' College, the Inspector of Secondary Schools.

Certificates of proficiency are awarded to pupils of Evening Continuation Schools whose attendance and work have been satisfactory throughout the course.

The number of candidates and of passes at the examinations for entrance to the high school and for intermediate and leaving certificates during 1928 and 1929 are shown below:—

Examinations.	1928.			1929.		
	Candidates.	Passes.		Candidates.	Passes.	
		Number.	Per cent.		Number.	Per cent.
High School Entrance and Bursary ...	15,409	10,274	66·7	16,718	8,567	51·2
Intermediate Certificate ...	7,617	5,951	78·1	9,291	6,850	73·7
Leaving Certificate (5th year) ...	1,998	1,521	76·1	2,512	1,709	68·0

TECHNICAL EDUCATION.

Technical education is under the direct control of the Department of Education, and is administered by a Superintendent, with financial and general procedure independent of other branches of the education system. The courses of instruction are co-ordinated, however, with those of the ordinary schools.

The Central Technical College is in Sydney, and there is a branch at East Sydney, Darlinghurst. Branch Colleges have been established also at Newcastle and Broken Hill and there are sixteen trade schools, viz., nine in the suburbs and seven in country towns. In addition, elementary instruction is provided in special subjects at fifty-two country centres where there is a demand for it and correspondence courses are provided in a number of subjects.

Specialised instruction in the practice of a wide range of callings is provided for the apprentice, improver, and journeyman, while higher courses, embracing the technology of the various trades and technical professions, may be followed by more advanced students.

The lower trade courses cover a period of three years in the Trade Schools, but sometimes they are extended to five years. Comprehensive courses covering five years and higher courses of two years' duration are given in the Technical Colleges. The subjects are grouped to form trade classes, instruction being given in all branches of mechanical and electrical engineering, building, sanitation, applied art, domestic science, commercial subjects, agriculture, sheep and wool classing and in manufacturing trades.

Some of the higher courses of evening instruction are co-ordinated with first-year courses at the University, and the satisfactory completion of any course of instruction is marked by the award of certificates, viz., the Certificate of Trade Competency in trade courses and the College Diploma in the higher courses. These certificates are recognised by employers.

The fees payable for instruction are very low, being usually at the rate of 4s. per term of thirteen weeks for juniors, and 8s. for seniors.

Intending students are required to furnish evidence that they possess sufficient preparatory knowledge to take profitable advantage of the training, and a student is not admitted to a course unless actually engaged in the specific trade to which the course relates. Special provision is made for the admission of journeymen, without preliminary test, to any part of the courses relating to their trades. Young students are admitted if they furnish a guarantee to become apprenticed before reaching the limit of the age of apprenticeship.

A noteworthy feature of the system is the existence of advisory committees in connection with each course of instruction. These committees are composed of representatives of employers and employees, who visit the classes regularly and discuss with the Superintendent and heads of departments matters relating to the maintenance of standards of efficiency in equipment and teaching, and by this means the courses are made to meet practical needs.

The following table shows the number of classes and teachers and the enrolments at the Technical College and Trade Schools during the last five years, together with the amount of fees received and of money expended.

Year.	Number of Classes.	Lecturers and Teachers.	Total Enrolments.*	Individual Students.	Fees Received.	Net Expenditure.†
					£	£
1925	679	519	26,796	11,787	17,882	178,624
1926	688	527	28,764	12,039	18,938	163,777
1927	743	552	30,399	13,238	20,771	170,269
1928	751	694	32,960	15,376	23,359	176,004
1929	755	628	33,280	15,253	26,111	193,791

* Students being counted in each class.

† After deducting fees received.

The net expenditure shown above is exclusive of interest on capital value of land, buildings, and equipment. The average net cost per student in 1929 was £12 14s. 1d.

The ages and sexes of the individual students attending technical classes in 1928 and 1929 were as follows:—

Age last Birthday.	1928.			1929.		
	Males.	Females.	Total.	Males.	Females.	Total.
14	249	471	720	253	540	793
15	720	572	1,292	682	638	1,320
16	1,578	586	2,164	1,555	612	2,167
17	1,824	463	2,287	1,852	515	2,367
18	1,599	361	1,960	1,605	338	1,943
19	1,130	304	1,434	1,245	299	1,544
20	889	221	1,110	798	219	1,017
21 and over	2,797	1,562	4,359	2,782	1,310	4,102
Total	10,786	4,540	15,326	10,782	4,471	15,253

In 1929 diploma courses were followed by 610 males and 2 females, trade courses by 6,608 males and 3 females, women's handicrafts and art classes by 342 males and 3,998 females, and miscellaneous courses by 3,222 males and 468 females.

Technical Education Examinations.

The following are particulars of examinations conducted under the technical education system during the last five years:—

Particulars.	1925.	1926.	1927.	1928.	1929.
Number Examined	21,799	22,722	24,116	27,602	29,193
Number of Passes	18,734	19,160	20,822	23,693	23,738
Percentage of Passes	85.9	84.7	86.3	85.6	81.3

These figures afford evidence of a very encouraging growth in this important branch of education, and a larger increase would have occurred if accommodation had been available for all applicants. The accommodation in the metropolitan centres is not sufficient for all the apprentices who desire to gain admission to the classes, particularly those relating to the building industry.

Railway and Tramway Institute.

Classes for the technical, commercial and general education of railway employees are conducted by the Railway and Tramway Institute, which is under the control of a director and advisory council.

The headquarters of the institute are in Sydney, and there are 49 branches. The total membership is 28,050, or more than half the railway employees. The number of students in 1929 was 7,069, and the courses ranged from elementary railway principles to the university matriculation standard. Correspondence courses are provided.

A scholarship of the value of £150 per annum, tenable for four years, in engineering at Sydney University is awarded annually to the most proficient student in the Engineering Matriculation Class.

UNIVERSITY OF SYDNEY.

The University of Sydney was incorporated by Act of Parliament on 1st October, 1850, and it was granted a Royal Charter on 27th February, 1858, when its graduates were accorded the same status in the British Empire as that of graduates of the Universities of the United Kingdom. Since 1884 women have been eligible for all University privileges.

Within the University there are ten faculties, viz., Arts, Law, Medicine, Science, Engineering, Dentistry, Veterinary Science, Agriculture, Architecture, and Economics, besides a School of Domestic Science. Degrees are awarded in each of these faculties in addition to diplomas in Commerce, Education, Public Health, Tropical Medicine, Psychiatry and Anthropology. There is also a course of study for pharmacy students proceeding to the final examination of the Pharmacy Board of New South Wales. In 1926 a course leading to the diploma in journalism was established provisionally. The University is precluded by statute from providing instruction or granting degrees in Theology and Divinity.

In 1854 an Act was passed to provide for the establishment within the University grounds of residential colleges in connection with the religious denominations. These colleges and the year in which each college was incorporated by Act of Parliament are as follows:—The Church of England (St. Paul's) 1854, Roman Catholic (St. John's) 1857, Presbyterian (St. Andrew's), 1867, Methodist (Wesley) 1910. There is also the Women's College (1889), which is conducted on an undenominational basis. The Teachers' College, which is non-residential and is not affiliated with the University, is maintained by the State for the training of teachers, and is situated in the University grounds. In the grounds of St. John's College a building for the accommodation of Catholic women students—Sancta Sophia Hall—was opened in 1926 and was incorporated as a college within the University in December, 1929.

Many benefactions have been bestowed on the University by private persons. These endowments include the Challis Fund, of which the original amount, £276,856, has been increased by investment to £386,282, the G. H. Bosch Fund over £250,000, the P. N. Russell Funds, £100,000; and the Fisher Estate, £30,000. In addition, the University receives a large annual revenue from the trustees of the McCaughey bequest, the amount so received in 1929 being £21,848. Excluding the principal of the McCaughey bequest, the credit balances of the private foundations amounted to £1,153,356 on the 31st December, 1929.

University Finances.

The University is supported chiefly by Government aid, the fees paid by students, and income derived from the private foundations.

The following statement shows the amounts derived from the principal sources of revenue, and the total expenditure during each of the last five years. Under the items are included sums received for capital expenditure on buildings, etc., and amounts from benefactors to establish new benefactions:—

Year.	Receipts.					Disbursements.	Private Endowment Funds Credit Balance at end of Year.
	Government Aid.	Fees.	Private Foundations.	Other Sources.	Total.		
	£	£	£	£	£	£	£
1925	122,870	40,731	101,963	6,872	272,436	245,850	706,821
1926	102,168	43,371	92,003	5,008	242,550	213,808	735,362
1927	75,132	45,297	84,624	3,260	208,313	189,814	744,201
1928	87,170	44,335	347,399	32,330	511,234	201,871	1,026,129
1929	81,170	46,575	117,650	16,256	261,651	206,796	1,153,356

* Includes Retiring Allowances Fund, but excludes the capital of McCaughey bequest.

The amount of Government aid as stated includes special appropriations paid from the Consolidated Revenue Fund to the Senate of the University to be expended in the erection of buildings for or in connection with the University under the University (Building) Act, 1919. The total amount of the appropriation was £300,000 payable in six annual instalments of £50,000 each, the last in the financial year ended 30th June, 1926.

In July, 1927, a special public appeal was made for donations towards the funds of the University, and up to 31st March, 1930, the sum of £330,836 had been received, mainly for the development of education in medicine.

Salaries comprise the principal item of disbursements in each year. The total expenditure inclusive of capital expenditure in the last five years was distributed as follows:—

Classification.	Amount.				
	1925.	1926.	1927.	1928.	1929.
	£	£	£	£	£
Salaries	130,276	135,293	142,477	152,222	153,690
Maintenance, Apparatus, etc.	41,379	42,587	34,599	35,440	34,813
Buildings and Grounds ...	65,358	17,657	4,739	7,138	11,344
Scholarships and Bursaries ...	6,332	6,587	6,890	6,859	5,917
Other	2,505	11,684	1,109	212	1,032
Total	245,850	213,808	189,814	201,871	206,796

Lectures, Staff, and Students.

Before admission to courses of study leading to degrees, students must afford proof of educational qualifications by matriculation. Non-matriculated students are admitted to lectures and to laboratory practice, but are not eligible for degrees. On the satisfactory completion of any course, however, they may be awarded a certificate. Lectures are delivered during the daytime in all subjects necessary for degrees and diplomas, and evening lectures are provided in the Faculties of Arts and Economics, in certain science subjects, and in Japanese. Students are required to attend at least ninety per cent. of the lectures in each course of study leading to a degree.

Lectures are delivered during three terms of ten weeks in each year. The period of study and total cost of graduation in each faculty are as follow:—Arts, 3 years, £81; Economics, 4 years, £102; Law, 4 years, £103; Medicine, 6 years, £259; Dentistry, 4 years, £223; Agriculture, 4 years, £125; Veterinary Science, 4 years, £120; Science, 3 years, £105; Engineering, 4 years—Civil, £170; Mechanical and Electrical, £177; Mining and Metallurgy, £184; Technology, £177; and Architecture, 5 years, £195.

Public exhibitions or exemptions from the payment of fees are granted annually on the results of the Leaving Certificate examination to 200 students entering the University, and fees are remitted in the case of teachers or students in training for the teaching profession attending University lectures. More than forty scholarships are awarded from private foundations, and twenty-five bursaries may be awarded by the Senate. In 1929 fees were remitted in respect of 1,205 students, including exhibitioners, State and University bursars and students in training as teachers. During 1926 a general service fee of 10s. per term was imposed upon all students in attendance at lectures, including students exempt from payment of ordinary fees, and it was increased to £1 1s. as from the beginning of 1927.

The number of degrees conferred by the University from the foundation to the end of 1929 was 11,135, made up as follows:—

Degree.	Number Conferred.		Degree.	Number Conferred.		Degree.	Number Conferred.	
	During 1929.	To end of 1929.		During 1929.	To end of 1929.		During 1929.	To end of 1929.
M.A. ...	11	622	B.D.S. ...	13	199	D.Sc.Eng. ...	...	1
B.A. ...	167	3,638	L.D.S. ...	...	30	M.E. ...	...	14
LL.D. ...	1	32	D.Sc....	3	36	B.E. ...	24	659
LL.B. ...	52	658	M.Sc. ...	3	17	M.Ec. ...	...	5
M.D. ...	2	86	B.Sc. ...	59	777	B.Ec. ...	17	219
M.B. ...	54	2,181	B.Sc.Agr. ...	8	64	B. Arch. ...	12	56
Ch. M. ...	5	1,657	D.V.Sc. ...	...	1			
B.S. ...	40	137	B.V.Sc. ...	3	45			
D.D.S. ...	1	2	B.Sc. Dom. ...	...	1	Total ...	475	11,135

In 1929 the teaching staff of the University included 48 professors and 163 lecturers and demonstrators. Professors and most of the lecturers are paid fixed salaries, and the remainder receive fees. Provision is made for a pension scheme for professors appointed since 1898, the benefit to accrue after twenty years' service, and after attaining the age of 50 years.

The University has not the power to confer honorary degrees, but may admit *ad eundem gradum* graduates of approved Universities, viz., Oxford, Cambridge, London, Durham, Victoria, St. Andrew's, Edinburgh, Glasgow,

Aberdeen, Dublin, Queen's of Ireland, Royal of Ireland, Melbourne, New Zealand, Adelaide, and of such other Universities as the Senate may determine:

The following statement shows the number of students attending the various courses in 1921, and in each of the five years 1925 to 1929:—

Course.	1921.	1925.	1926.	1927.	1928.	1929.		
						Men.	Women.	Total.
Degree and Special Courses—								
Arts	856	811	794	828	839	424	449	873
Law	328	322	288	290	255	253	7	260
Medicine	985	508	403	393	362	352	33	385
Science	220	196	217	206	242	151	86	237
Engineering	224	121	124	139	128	131	...	131
Dentistry	82	69	59	72	71	60	5	65
Veterinary Science	16	14	10	18	25	33	...	33
Agriculture	28	31	25	23	29	35	...	35
Architecture	55	51	41	54	55	34	16	50
Economics	138	107	118	128	127	124	29	153
Japanese	12	7	8	6	4	3	4	7
Diploma Courses—								
Commerce	148*	107	95	79	109	93	5	98
Public Administration ... ..	...	...	...	...	...	15	...	15
Journalism ... ..	...	...	11	12	9	3	7	10
Anthropology ... ..	...	...	...	...	7	17	8	25
Pharmacy Students	204	289	243	178	123	109	21	130
Massage Students	21	8	11	15	21	1	26	27
Social Study and Training ... ..	...	...	...	...	...	...	12	12
<i>Less Students enrolled twice ...</i>	<i>42</i>	<i>30</i>	<i>25</i>	<i>31</i>	<i>24</i>	<i>23</i>	<i>3</i>	<i>26</i>
Total, Individual Students ...	3,275	2,611	2,422	2,410	2,382	1,815	705	2,520

* Economics and Commerce.

There were 36 post-graduate students and research scholars in 1929, viz., 18 in the Faculty of Arts, 5 in Medicine, 6 in Science, 4 in Engineering, and 3 in Agriculture.

The decline of 893 students between 1921 and 1928 may be attributed partly to the completion of courses delayed by the war and partly to an increase in fees in 1921. The decline was general in all courses except science, being greatest in respect of medical students. In 1929 there was an increase as compared with 1928 in all courses except Science, Dentistry and Architecture. The number of students admitted to matriculation in 1929 was 573, as compared with 575 in 1921.

University Clinics.

Three metropolitan hospitals, viz., Royal Prince Alfred, Sydney, and St. Vincent's, provide clinical schools for students in Medicine.

Such students must pass through the hospital curriculum of study and practice in order to obtain the certificate of hospital practice necessary to qualify for admission to the final degree examination in medicine and surgery.

Other hospitals where studies may be undertaken in connection with the Faculty of Medicine are:—The Royal Hospital for Women, Royal Alexandra Hospital for Children, the Callan Park and Newcastle Mental

Hospitals, the Broughton Hall Psychiatric Clinic, the Women's Hospital, the Renwick Hospital for Infants, and the South Sydney Hospital for Women.

In connection with the Department of Dental Studies, the United Dental Hospital of Sydney provides facilities for the instruction of students. The University lecturers in surgical and mechanical dentistry are, *ex officio*, honorary dental surgeons of the hospital.

Student Adviser and Appointments Board.

In 1922 the Senate appointed a student adviser to acquaint himself with every phase of University life and to hold his knowledge at the disposal of individual students and of students' clubs and societies. This officer is also secretary of the Appointments Board created for the purpose of assisting students in obtaining positions. To this end the Board endeavours to supply employers with accurate reports concerning graduates, who are required to register with the Board while attending the courses at the University.

Extension Lectures.

University Extension Lectures are conducted under the direction of a University Extension Board of from twelve to eighteen members appointed annually by the senate. Courses of lectures upon topics of literary, historical, and scientific interest are given in various centres at a charge of £2 per lecture. At the conclusion of a systematic course of ten lectures, an examination may be held and certificates awarded to successful candidates. In 1929 the Board conducted fifteen courses of lectures, of which eight were in country centres. The total number of lectures delivered was 96.

Tutorial Classes.

In accordance with the provisions of the University Amendment Act of 1912, the Senate has established regular evening Tutorial Classes, and the Government contributes annually a sum of £6,370 for the maintenance of Tutorial Classes and Extension Lectures. Tutorial Classes are open to unmatriculated as well as to matriculated students, and diplomas are issued to persons who have studied in these classes for at least one year in any one subject. Tutorial Classes, which may be established in particular branches of study upon specific requisition by intending students, have been formed in conjunction with the Workers' Educational Association in suburban and country centres as well as at the University. A resident tutor is stationed at Newcastle. Particulars of the classes are shown on a later page with other information relating to the Workers' Educational Association.

SCHOLARSHIPS AND BURSARIES.

It is the policy of the State to assist promising students to obtain secondary and tertiary education by granting scholarships and bursaries and a number are provided by private endowment. Particulars of these scholarships and bursaries and the conditions attached thereto have been given in previous issues of the Year Book.

Scholarships tenable at State secondary schools are not awarded as fees are not charged, and school material is supplied to all pupils. A few scholarships—six in 1929—are provided by the State to enable boys to attend the Sydney Grammar School.

At Day Continuation Schools in 1929, sixty-five girls gained scholarships tenable for three years at a technical college. At the Intermediate Certificate and Junior Technical examinations 34 scholarships for Lower Trades Courses were awarded, viz., 24 to boys and 10 to girls, and 12 Hawkesbury

Agricultural Scholarships, as well as two scholarships, valued at £25 per annum, tenable for two years, to enable the boy and the girl who gained the best passes to complete the secondary course. At the Leaving Certificate Examination 16 boys were awarded scholarships for diploma courses at Technical Colleges; in addition, 200 exhibitions were provided exempting the holders from the payment of fees to the University, viz., 110 pupils of State schools, and 90 pupils of registered secondary schools. In the same year 10 boys at evening continuation schools won scholarships for free education and a supply of text-books valued at £1 10s. per annum, tenable at day courses.

Bursary Endowment.

The Bursary Endowment Act, 1912, provides public moneys for bursaries, tenable in public or private secondary schools and in the University of Sydney. The fund is administered by a board, consisting of two representatives each of the University of Sydney, of the Department of Education, and of the private secondary schools registered under the Act.

The bursaries awarded in 1929 numbered 301, viz., 180 to boys and 121 to girls. Of these 218 were tenable at State high schools and 83 at private schools for 5 years from 1st January, 1929.

Bursaries, tenable for two or three years, are awarded upon the results of the Intermediate Certificate Examination. They are of the value of fourth and fifth year bursaries. Nine were awarded to boys and six to girls in 1929.

Bursaries tenable at the University of Sydney may be awarded to candidates at the Leaving Certificate examination who are under 19 years of age and whose parents' means are inadequate for the expense of a University education. The number of such bursaries awarded annually ranges from 25 to 40. Twenty-nine were awarded to boys and 9 to girls in 1929.

At 30th June, 1929, excluding 252 holders of war bursaries, there were 1,326 pupils holding bursaries under the Bursary Endowment Act, viz., 1,217 were attending courses of secondary instruction, and 109 were attending University lectures. The annual monetary allowances paid in 1928-29 were as follow:—

Allowances.	Bursars.	Allowances.	Bursars.
£		£	
12	482	40	320
18	141	50	142
24	130	65	49
25	60		
30	2	Total	1,326

In addition to the bursaries made available by the Bursary Endowment Board, three bursaries, tenable for three years at the Hawkesbury Agricultural College, are awarded by the Department of Agriculture on the results of the College entrance examination. These bursaries exempt their holders from payment of the education and maintenance fee of £30 per annum. There are also three scholarships, tenable for two years, at the farm schools at Bathurst and Wagga Experiment Farms; and one, tenable for one year, at the apprentice school at Wollongbar Experiment Farm.

War bursaries are provided by the Bursary Endowment Board for children of incapacitated and fallen soldiers. The number in operation at 30th June, 1929 was 282, each receiving £10 per annum. The total number awarded since they were initiated in 1916 was 2,245.

The war bursaries are awarded usually to children between the ages of 10 and 13 years. Upon reaching the latter age the children become eligible for benefits under a scheme adopted by the Repatriation Commission to assist such children to obtain higher education and training for skilled trades, technical or professional careers. From the date these benefits became available in February, 1921, to 30th June, 1930, applications to the Commission were approved in 4,146 cases in New South Wales and a sum of £365,424 was expended in the State. This sum included private gifts and bequests, but the greater part was provided by the Commonwealth Government.

For the education of the children of fallen soldiers and sailors assistance is granted also from the Anzac Memorial Bursary Fund which was created by public subscription and vested in the Bursary Endowment Board. Bursaries awarded from this fund are tenable at secondary schools or the University. To 30th June, 1929, the number of such bursaries awarded was 76, of which four at the rate of £25 per annum were awarded in 1928-29.

TRAINING OF SCHOOL TEACHERS.

The Teachers' College which is located in the grounds of the Sydney University is maintained by the State for the training of teachers for the State service. Another college was opened at Armidale in 1928 with the object of decentralising the training. Teachers for private schools also may be trained at the colleges on certain conditions, but few persons avail themselves of this provision.

A course extending over a period of two years prepares teachers for the various classes of primary and infant schools. Teachers of small rural schools are required to undergo an abbreviated course of one year, and the course for teachers of secondary schools extends over four years. Special courses are arranged to meet the requirements of the State schools and for the benefit of individual students possessing special capabilities.

The training of the students enrolled at the Teachers' College is conducted at the University and at four practice schools. There is a hostel for the accommodation of women students in Sydney and a property has been acquired for use as a hostel in connection with the Armidale College.

The staff of the Teachers' College in 1929 consisted of a principal, vice-principal, forty-one lecturers, three visiting lecturers, and twelve clerical and library assistants. Members of the teaching staff are afforded opportunities to study abroad, and leave of absence, on full pay, may be granted for this purpose.

There were 1,538 students enrolled at the Teachers' Colleges in 1929, as shown in the following statement:—

Students.	Men.	Women.	Total.
First year	231	368	599
Second year	215	328	543
Third year	41	29	70
Fourth year	39	51	90
Graduate	4	9	13
Short Course (one year)	84	101	185
Cookery ... ..	...	38	38
Total	614	924	1,538

The library in connection with the Teachers' College, Sydney, contained 35,740 volumes in 1929.

Classification of State Teachers.

Teachers in the service of the State are classified, and are promoted from one grade to another according to their efficiency, which is gauged on reports of inspectors and their attainments as tested by written and oral examinations. Students who have completed a course of training at the Teachers' College are required to obtain practical experience as teachers before they are classified.

A comparative statement of the classification of the teaching staff of the State schools at the end of the years 1919 and 1929 is shown below; those in the Technical Education Branch are not included.

Teachers.	1919.			1929.		
	Men.	Women.	Total.	Men.	Women.	Total.
High School Teachers ...	244	215	459	596	525	1,121
Principals and Assistants—						
First Class ...	339	112	451	484	147	631
Second Class ...	1,168	907	2,075	1,392	1,261	2,653
Third Class ...	1,262	1,306	2,568	1,224	1,734	2,958
Unclassified ...	377	1,615	1,992	186	432	638
Awaiting Classification ...				453	747	1,200
Cookery Teachers ...	...	59	59	...	156	156
Sewing Mistresses ...	...	157	157	...	222	222
Manual Training Teachers ...	...	...	...	204	...	204
Visiting Teachers ...	...	...	...	3	52	55
Temporary Teachers ...	...	...	...	40	671	711
Total ...	3,390	4,371	7,761	4,582	5,967	10,549
Students in Training ...	226	560	786	614	924	1,538
Subsidised School Teachers ...	20	435	455	42	401	443
Grand Total ...	3,636	5,366	9,002	5,238	7,292	12,530

There has been a general advance in the standard of educational attainments of teachers in New South Wales during the past ten years. The number of unclassified teachers has decreased absolutely and relatively, and a large increase has occurred among high school teachers and those holding first class certificates. At the end of 1929 there were 1,234 University graduates in the teaching service, viz., 612 men and 622 women.

Teachers awaiting classification consist mainly of ex-students of the Training College ineligible for classification until they have obtained the requisite teaching experience. Most of them possess the educational attainments for second or third class certificates.

Teachers of subsidised schools are not required to be trained, but they must have sufficient educational attainments to teach the curriculum of primary schools, and supervisors have been appointed to instruct them with a view to increasing their efficiency. The average number of pupils enrolled in subsidised schools is seven per teacher, the schools being situated in remote districts.

STATE EXPENDITURE ON EDUCATION.

State Schools.

Although the expenditure on the State schools rose steadily between 1901 and 1911, the recent expansion of the system has caused a very rapid increase in expenditure since that year, but more especially since 1919 on account of the substantial increases in salaries paid to teachers. Part of

this additional expenditure has been occasioned by the increase in the number of scholars, but the cost of education per pupil has more than doubled since 1911. The total expenditure on primary and secondary schools during 1929 was £5,054,379.

The following statement provides a comparison of the State expenditure on schools at intervals since 1891. The expenditure on technical education is not included.

Year.	Maintenance and Administration.	School Premises.	Total Expenditure.	Per Pupil—Mean Quarterly Enrolment.		
				Maintenance and Administration.	School Premises.	Total Expenditure.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
1891	578,191	191,374	769,565	3 7 10	1 2 6	4 10 4
1901	703,974	57,663	761,637	3 6 2	0 5 5	3 11 7
1911	1,048,583	193,993	1,242,576	4 13 10	0 17 4	5 11 2
1921	3,229,042	329,795	3,558,837	10 4 4	1 0 10	11 5 2
1926	3,627,652	699,918	4,327,570	10 10 4	2 0 7	12 10 11
1927	3,698,973	721,352	4,420,325	10 8 7	2 0 8	12 9 3
1928	3,939,338	1,069,409	5,008,747	10 12 5	2 17 8	13 10 1
1929	4,207,754	846,625	5,054,379	11 1 4	2 4 7	13 5 11

The following statement shows the distribution of expenditure, including capital expenditure in connection with primary and secondary schools (but omitting expenditure on technical education) in 1921 and subsequent years:—

Particulars.	1921.	1926.	1927.	1928.	1929.
Sites, Buildings, Additions*—	£	£	£	£	£
Primary Schools‡ ...	173,781	429,501	404,547	725,676	465,286
High Schools ...	26,703	40,742	113,015	103,332	121,179
Teachers' College ...	3,816	...	...	...	15,428
Rates (municipal and shire)† ...	36,376	61,531	52,940	65,157	74,329
Rent, Furniture and Repairs ...	89,120	168,144	150,820	175,244	179,403
Salaries and Allowances—					
Primary Schools‡ ...	2,446,638	2,645,591	2,676,795	2,809,100	2,986,730
High Schools ...	200,028	333,966	352,234	398,897	451,597
Evening Continuation Schools... ‡	12,190	16,191	16,120	17,463	17,750
Other Maintenance Expenditure—					
Primary Schools‡ ...	188,975	195,673	219,072	245,999	274,283
High Schools ...	27,314	39,990	38,612	49,537	51,967
Evening Continuation Schools... ‡	1,541	1,558	1,321	1,133	1,235
Bursaries and Scholarships ...	58,285	36,805	41,765	41,205	40,306
Boarding and Conveyance Allowances	36,149	44,503	49,843	56,884	51,195
Training of Teachers ...	98,537	118,315	125,827	136,778	154,143
School Medical Inspections ...	22,197	34,219	35,174	36,814	36,683
School Inspection ...	47,971	50,288	53,136	55,230	...
Administration and other Expenses	89,216	110,553	89,074	90,295	141,865
Total... ‡	£3,558,837	4,327,570	4,420,325	5,008,747	5,054,379

* Includes State Insurance on School Buildings. † Expended by Resumed Properties Department on behalf of Department of Education. ‡ Includes expenditure on super-primary education in intermediate high, district, continuation and rural schools.

The amounts shown in the foregoing tables do not include any allowance for vested residences granted to teachers, of which the annual value was estimated at £49,915 in 1929. The figures are exclusive also of interest paid on loan money used for the erection of schools.

Capital Expenditure on School Buildings, etc.

In view of an acute shortage of accommodation in State schools in recent years, large sums have been expended from the Loan Fund and the Public Works Fund for the purpose of building new schools, teachers' residences, etc. The total amount so expended during the decennium ended 30th June, 1930, was £5,478,316, the expenditure in each year being as follows:—

Year ended 30th June.	Expenditure from Loan and Public Works Funds.	Year ended 30th June.	Expenditure from Loan and Public Works Funds.
1921	251,734	1926	505,153
1922	330,084	1927	653,047
1923	530,428	1928	769,943
1924	591,784	1929	788,701
1925	657,119	1930	400,323

The amount expended during the year ended June, 1921, was disbursed from the Public Works Fund, which represented money derived from the sale of Crown lands and grants from consolidated revenue. In later years a large proportion was obtained from loans, but in some cases provision was made that the amounts be recouped to the Loan Fund from the Public Works Fund.

Total Public Expenditure on Education.

In addition to expenses incurred in respect of the State school system, the public expenditure on education in New South Wales includes grants and subsidies to the University and other educational and scientific organisations. A summary of the total expenditure by the State in respect of education in various years since 1911 is shown below. The expenditure on buildings, equipment, sites, etc., representing capital expenditure, is distinguished as far as practicable from expenditure for maintenance, including grants and subsidies which may be regarded as annual costs.

Year ended 30th June.	Expenditure.			
	Capital.	Annual.	Total.	Per head of Population.
	£	£	£	£ s. d.
1911	176,778	1,213,368	1,390,146	0 17 5
1921	251,880	3,473,545	3,725,425	1 15 8
1926	512,225	4,639,154	4,551,379	1 19 7
1927	666,304	4,223,077	4,889,381	2 1 8
1928	800,328	4,448,579	5,248,907	2 3 8
1929	798,955	4,756,250	5,555,205	2 5 5
1930	410,556	4,938,942	5,349,298	2 3 2

These figures are exclusive of amounts spent by the State on the agricultural college and experiment farms and societies for the promotion of agricultural and allied interests, of which particulars are shown in the chapter relating to the agricultural industry. They exclude also the interest paid on loan money invested in works used for public instruction.

EDUCATIONAL AND SCIENTIFIC SOCIETIES.

Many organisations are in existence in New South Wales which have for their objective the encouragement of professional interests, and the advancement of Science, Art, and Literature. These include the Royal Society of New South Wales, which has for its objects the advancement of science

in Australia, and the encouragement of original research in all subjects of scientific, artistic, and philosophic interest, and the Linnaean Society of New South Wales, established for the special purpose of promoting the advancement of the botany and natural history of Australia.

Other important scientific societies are the Royal Zoological Society of New South Wales, inaugurated in 1879; a branch of the British Medical Association, founded in 1881; a branch of the British Astronomical Association; the Australasian Association for the Advancement of Science; the Royal Geographical Society; the University Science Society; Australian Historical Society; the Naturalists' Society of New South Wales; and a branch of the Economic Society of Australia and New Zealand formed in 1925.

All the learned professions are represented by associations or societies.

The Royal Art Society holds an annual exhibition of artists' work at Sydney; and of the many musical societies, mention may be made of the Royal Sydney Apollo Society, and the Royal Sydney Philharmonic Society.

Workers' Educational Association.

The Workers' Educational Association of New South Wales was founded at a conference called by the Labour Council of New South Wales in June, 1913. It organises tutorial classes, study circles, summer and holiday schools, and public lectures. In 1929 the membership of the association in New South Wales consisted of 1,322 individual members, and 127 organisations were affiliated with it.

In 1929 fifty-eight classes were held, viz., twelve at the University, nineteen in the city and suburbs, nine in the Newcastle district, and eighteen in other country districts. The number of students enrolled was 1,802, and the effective enrolment was 1,591. The association received an endowment of £500 from the State and its subscription fees amounted to £836.

CONSERVATORIUM OF MUSIC.

The State Conservatorium of Music, which was established in 1915, provides tuition in music, from the elementary to the advanced stages. The studies are divided into two sections. The Music School Section consists of three courses, viz., elementary, intermediate, and advanced—the last-mentioned extending over two years. A certificate is granted on the satisfactory conclusion of each course. The advanced grade certificate of the Music School Section entitles the holders to admission to the Diploma Section, in which a course of two years' tuition, leading to the Professional Diploma, is given under the personal direction of the Director of the Conservatorium. A preparatory course is available for juveniles who have not previously received musical tuition.

The number of students enrolled in the various courses of study at the Conservatorium was 1,400 in 1928 and 1,410 in 1929. The receipts in 1928-29 consisted of fees, receipts from concerts, etc., amounting to £26,983, and the expenditure to £31,458.

MUSEUMS, LIBRARIES, AND ART GALLERY.

The Government of New South Wales maintains a number of museums and libraries and a National Art Gallery. The expenditure by the State on buildings for these institutions to 30th June, 1930, amounted to £480,514.

Museums.

The Australian Museum in Sydney is the oldest institution of its kind in Australia. It is incorporated under control of trustees, with a State endowment, which is supplemented by annual Parliamentary appropriations. It contains fine specimens of the principal objects of natural history, and a valuable collection of zoological and ethnological specimens of distinctly Australian character. A library containing many valuable publications is attached to the institution. Lectures and gallery demonstrations are given in the Museum, and are open to the public. During the year 1929 visitors to the Museum numbered 267,074, as compared with 297,795 in 1928. The expenditure during the year 1929 was £24,903. The institution is supported by a statutory endowment of £1,000 per year and by an annual parliamentary appropriation, the amount received from the Consolidated Revenue Fund in the financial year ended 30th June, 1930, being £23,042.

A Technological Museum has been established as an adjunct to the Central Technical College. It contains a valuable series of specimens illustrative of various stages of manufacturing, and a collection of natural products acquired by purchase, gift, loan, or exchange. Technological Museums are established also at Goulburn, Bathurst, West Maitland, Newcastle, and Albury.

Research work is conducted by the scientific staff at the Technological Museum in connection with the development of the natural resources of Australia.

There is a Mining and Geological Museum attached to the Department of Mines. Its functions include the preparation and collection of minerals to be used as teaching aids in schools and in other institutions.

The Agricultural and Forestry Museum is an adjunct of the Department of Agriculture.

The public have access to the "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History, the Museum of Normal and Morbid Anatomy, attached to the Sydney University, and the National Herbarium and Botanical Museum at the Botanic Gardens. Housed in the Macleay Museum is the Aldridge collection of Broken Hill minerals.

Public Library of New South Wales.

The Public Library of New South Wales was incorporated in 1890 with a statutory endowment of £2,000 per annum for the purchase of books. In 1924 the National Library Act authorised the erection of new buildings at an estimated cost of £495,500 and the work of construction is in progress.

The scope of the library, which is essentially a reference institution, is extended by a loan system, under which books are forwarded to individual students in the country, and to institutions, such as libraries, schools of arts, progress associations, lighthouses, associations of primary producers, branches of the Public School Teachers' Associations and of the Agricultural Bureau, and schools.

In June, 1930, the Reference Department of the Public Library (exclusive of the Mitchell Library) contained 314,080 volumes, including 69,501 volumes for country libraries under the lending system. The attendance of visitors during the year 1929-30 numbered 239,688.

The Mitchell Library contains a unique collection, principally of books and manuscripts relating to Australasia and paintings of local historic interest donated by Mr. David Scott Mitchell to the trustees of the Public Library. Mr. Mitchell endowed the library with an amount of £70,000, the income from which is expended on books and manuscripts. In 1930 there

were 124,344 volumes in the Mitchell Library, which is located in a separate building. There were 24,112 visitors during the year ended 30th June, 1930.

The total cost to the State of the Public Library buildings was £29,458, and of the Mitchell Library £95,019, at 30th June, 1930. The expenditure on maintaining the Public Library (including the Mitchell Library) during 1929-30 was £38,027, including £12,073 from the Mitchell Library Endowment Fund.

Sydney Municipal Library.

The Sydney Municipal Library is a free lending library administered by the Council of the City of Sydney. It contained 47,562 volumes in 1929.

Maintenance costs during 1929 amounted to £14,138, made up as follows:—Salaries, etc., £9,061; books, periodicals, binding and electric lighting, £5,077.

Other Libraries.

Local libraries established in about 400 centres throughout the State, may be classed broadly under two heads—Schools of Arts, receiving an annual subvention in proportion to the amount of monetary support accorded by the public; and Free Libraries established in connection with municipalities. Under the provisions of the Local Government Act any shire or municipality may establish a public library, art gallery, or museum.

The library of the Australian Museum, though intended primarily as a scientific library for staff use, is accessible to students, and 26,470 volumes may be found on the shelves. In the library attached to the National Herbarium there are 10,000 volumes.

The libraries in connection with the Technological Museum, and the Technical College and branches, contain approximately 15,181 text-books. In the library of the Teachers' College there are 37,740 volumes; in libraries attached to State Schools, 523,887 volumes; and in the Fisher Library at the University 187,990 volumes.

The Parliamentary Library contains over 52,000 books, and large numbers of volumes are in the libraries of the Law Courts and Government Offices.

National Art Gallery of New South Wales.

The National Art Gallery contains a good collection of oil paintings, water colours and statuary, including some works of prominent modern artists, and some valuable gifts from private persons.

The present value of the contents of the Gallery is £180,329, and the cost of the building to 30th June, 1930, was £95,033.

The number of paintings, etc., in the Gallery at end of year 1929 was 2,778, and the total amount expended in purchasing works of art during that year was £1,427, distributed as shown below:—

Classification.	Paintings, etc., in Gallery.	Expenditure during 1929.
Oil Paintings	No. 595	£ 1,102
Water Colours	444	12
Black and White Works	913	233
Various Art Works in Metals, Ivory, Ceramics, Glass, Mosaic, etc.	826	20
Total	2,778	1,427

The total expenditure during the year 1929 amounted to £6,340, including salaries and wages of £4,081.

The attendance at the National Art Gallery during 1929 was 130,445 on week-days and 63,019 on Sundays.

Art students under certain regulations, may copy works and enjoy the benefit of a collection of books of reference on art subjects. Collections of pictures are sent to the principal country towns for temporary exhibition, 293 pictures being so distributed during 1929.

The Gallery has received but small support from private endowments, and consequent upon its limited funds, is restricted mainly to the collection of specimens of contemporary art.

The Wynne Art Prize consisting of the interest on approximately £1,000 is awarded annually to the Australian artist or sculptor producing the best landscape painting of Australian scenery in oils or water colours, or the best production of figure sculpture.

The Archibald Prize is awarded for the best portrait, "preferably of some man or woman distinguished in art, letters, science, or politics painted by any artist resident in Australasia." The amount available for the prize in each year is approximately £400.

LAW COURTS.

ONE of the cardinal principles of the constitution of New South Wales is that of the supremacy of the law of the land inherited from England. By it equal legal status is accorded to all citizens. No person may be punished lawfully except for a breach of law proven in the courts before which all men have equal status, including rights of appeal and the right, in proper cases, to contest the validity of laws and regulations in the law courts.

Laws.

The body of law in force in New South Wales consists of the following elements:—

- (i) The Common Law of England and English statute law inherited on the original settlement of the colony in 1788, or applied by Act of Parliament in 1828.
- (ii) Acts passed by the Parliament of the State of New South Wales, together with regulations, rules, and orders made thereunder, and certain decisions of the State Judges having the force of law.
- (iii) Acts passed by the Parliament of the Commonwealth of Australia within the scope of its allotted powers, together with regulations, rules, and orders made thereunder.
- (iv) Imperial laws binding New South Wales as part of the British Empire, as part of the Commonwealth of Australia, or as a State.

The last-named, however, relate mainly to external affairs or matters of Imperial concern.

The proper subjects for Federal legislation are limited in number. In some cases Federal powers of legislation are exclusive, in others concurrent with those of the State. In all cases of conflict valid Federal laws override State laws. The legislative powers of the Federal Parliament are confined mainly to public law, and to those matters of private law on which interstate uniformity is desirable. The greater part of private law is enacted by the State Parliament.

The legal system of New South Wales is highly developed, having been modelled closely on that of England by incorporating into the body of local law and legal procedure leading features from the English system.

The main features of the system are that established law is enforced by public law courts by judges who hold office until they reach a prescribed retiring age, subject only to good behaviour, as determined by Parliament; the advocates employed at law are subject to the special control of the Supreme Court; and officers of police or prisons are answerable at law for the manner in which their duties are performed.

The jurisdictions of the courts of law are distributed in such a way as to secure prompt trial. Minor civil and criminal cases are relegated to Courts of Petty Sessions within the districts in which they arise, and more important civil cases are heard before a judge of the District Court, who also presides in criminal jurisdiction over Courts of Quarter Sessions.

The Supreme Court of New South Wales has jurisdiction in all matters of law arising in the State, except certain matters of a federal nature, which are reserved for the High Court of Australia. It may delegate certain of its powers, and exercise general powers of supervision over the administration of justice through its right to issue and enforce writs and to hear appeals.

A number of courts of law have been established to deal with certain special matters, viz., Licensing Courts, Fair Rents Courts, Taxation Courts of Review, (Mining) Wardens' Courts, Courts of Marine Inquiry, Land and Valuation Court, and, among criminal courts of magisterial rank, Coroners' Courts and Children's Courts. Special jurisdictions are exercised by the Industrial Commission and by the Workers' Compensation Commission. Special matters arising under the various land laws of the State are dealt with by Local Land Boards.

The external courts of law, whose jurisdiction extends to New South Wales are the Judicial Committee of the Privy Council (appellate only), and the High Court of Australia (original in certain matters and appellate in other matters).

Jurisdiction under Federal laws is generally exercisable by any State court, presided over by a magistrate or judge, subject to the same limitations as are imposed on their jurisdictions under State laws.

FUGITIVE OFFENDERS AND EXTRADITION.

By the Service and Execution of Process Act (Federal), civil process commenced in any State of the Commonwealth may be served in any other, and judgment obtained in any State may be enforced in any other. In criminal proceedings, warrants issued in one State and endorsed in another may be duly executed in that State and the fugitive surrendered.

Special arrangements governing these matters as between different parts of the British Empire are made by the Fugitive Offenders' Act, 1881 (Imperial).

Extradition to foreign countries is governed by Imperial Acts, or local Acts of special sanction, under treaties concluded with the countries concerned, but such treaties may be arranged only by the Imperial Government, and these are usually made applicable to the whole Empire.

ADMINISTRATION OF LAW.

Ministers of the Crown.

In New South Wales the duty of administering laws is allotted to Ministers of the Crown in their respective spheres, and a table of Acts administered by each Minister, may be found in "The New South Wales Parliamentary Companion." Usually an Attorney-General and a Minister of Justice are appointed, but sometimes these offices are combined and a Solicitor-General is included in the Cabinet. Sometimes the Solicitor-General is a salaried public servant. There is also a Crown Solicitor—a salaried public servant.

The Attorney-General is charged with the conduct of business relating to the higher courts (such as Supreme and District Courts), the offices of the Crown Solicitor, Crown Prosecutors, Clerk of the Peace, and Parliamentary Draftsmen, as well as statute law consolidation and certain Acts, including the Poor Prisoners' Defence Act and the Poor Persons' Legal Remedies Act. Furthermore, he corresponds with other Ministers on questions of State on which his legal opinion is required, and with judges on matters within his control, initiates and defends proceedings by or against the State, and determines whether prosecution lies in cases of indictable offences.

The Minister of Justice supervises the working of the magistrates' courts, of gaols and penal establishments, the infliction of punishment and execution of sentences, also the operations of the various offices connected with the Supreme and District Courts. He administers Acts of Parliament relating to justices, juries, coroners, prisons and prisoners, criminals, inebriates, registration of firms, companies, and licensed trades and callings.

Judges of the Supreme Court.

Judges of the Supreme Court of New South Wales are styled "Justices," and are appointed by Commission of the Governor on the advice of the Executive Council. No person may be appointed Judge of the Supreme Court unless he is a barrister of five years standing. In addition to exercising legal jurisdiction the judges have power to make rules governing court procedure and to control the admission to practice of barristers and solicitors and to supervise their conduct.

A judge is immune from prosecution for the performance of his judicial duties within the scope of his jurisdiction. He holds office "during good behaviour" until the age of seventy years at a salary fixed by statute—£3,500 per annum to the Chief Justice and £2,600 per annum to each puisne judge. By these provisions the judiciary is rendered completely independent of the executive, but a judge may be removed from office by the Crown on the address of both Houses of Parliament. Each member of the Industrial Commission of New South Wales has the same status and rights as a puisne judge of the Supreme Court.

Judges of the District Court.

Any barrister of five years standing or attorney of seven years standing may be appointed as judge of the District Court by the Governor to exercise the jurisdiction of the Court in districts allotted by the Governor. Such persons hold office during ability and good behaviour, at a salary of £1,500 per annum. They may be removed from office by the Governor for inability or misbehaviour subject first to appeal to the Governor-in-Council. A judge may not engage in the practice of the legal profession. The chairman of the Workers' Compensation Commission has the same status as a District Court Judge.

Other Officers of the Courts.

Certain ministerial functions are performed by magistrates and justices in addition to their judicial duties, but special officers are appointed for certain purposes in the administration of justice, viz., Crown Prosecutors to act in Criminal Courts in prosecuting persons accused of indictable offences, Clerks of Petty Sessions, the Clerk of the Peace and his deputies, to act as Clerks for the Courts of the Quarter Sessions, Registrars of the Small Debts and District Courts, and Bailiffs.

In connection with the Supreme Court there are two important officers in addition to those connected with special jurisdictions, viz., the Prothonotary and the Sheriff.

The Prothonotary of the Supreme Court is its principal officer in the common law and criminal jurisdiction. He acts as registrar of the Courts of Matrimonial Causes, Admiralty, and Criminal Appeal. The Prothonotary or his deputy may be empowered under rules of the court to transact business usually transacted by a judge sitting in chambers, except in respect of matters relating to the liberty of the subject.

The office of Sheriff is regulated by the Sheriff Act, 1900. There is a Sheriff and Under Sheriff. Sheriff's officers are stationed at convenient country centres, where there is a Deputy Sheriff—usually a Police Magistrate. The functions of the Sheriff include the enforcement of judgments and execution of writs of the Supreme Court, the summoning and supervision of juries, and administrative arrangements relating to the holding of courts.

Magistrates.

Magistrates are appointed from among members of the Public Service unless it is certified by the Public Service Board that no member of the service is suitable and available for such office. Persons so appointed must

have attained the full age of thirty-five years, and have passed the prescribed examination in law. They hold office at the pleasure of the Governor.

Within the districts of the Metropolis, Parramatta, Newcastle, Broken Hill, Bathurst, and Wollongong, the jurisdiction of the Court of Petty Sessions is exercised exclusively by Stipendiary Magistrates. In country districts jurisdiction in Petty Sessions is exercised by Police Magistrates wherever convenient, and otherwise by honorary justices in minor cases. Police Magistrates were first appointed in 1837, and Stipendiary Magistrates in 1881.

The jurisdiction of magistrates is explained in connection with Courts of Petty Sessions, and their functions comprise those of Justices of the Peace, explained later. In addition they usually act in country centres as District Registrars in Bankruptcy, Revising Magistrates, visiting Justices to gaols, Deputy Sheriffs, Mining Wardens, and Industrial Magistrates.

Justices of the Peace.

Persons of mature age and good character may be appointed as Justices of the Peace by Commission, under the Grand Seal. The office is honorary, and is held during the pleasure of the Crown. No special qualifications in law are required, but appointees must be persons of standing in the community and must take prescribed oaths. Women became eligible for the office under the Women's Legal Status Act, 1918.

The functions of justices are numerous, extending over the administration of justice generally, the maintenance of peace, and the judicial duties of the office. The judicial powers are explained in connection with the Courts of Petty Sessions, and other duties include the issue of warrants for arrests, issue of summonses, administration of oaths, and certification of documents.

In December, 1930, there were approximately 27,480 Justices of the Peace in New South Wales, including 880 women.

Registration of Legal Documents, etc.

The Registrar-General in New South Wales registers certain occurrences and transactions of special legal significance as prescribed by Act of Parliament. Registrations are made of births, deaths, and marriages; of deeds, titles to land, transfers, land leases; of mortgages and liens; of companies and firms, and of documents under the Real Property Act; of bills of sale, and of instruments under the Newspapers and Printing and certain other Acts.

The documents relating to registration are usually available for inspection by the public. Fees are charged in most cases for registration and for inspection. The amount collected as fees for registration, inspection, and searches, and for public documents sold by the Registrar-General during 1928, was £251,959; and in 1929 it was £252,763, of which £179,989 were collected by the Lands Titles Branch and £57,572 by the Deeds Branch.

The registration of patents, copyrights, trade marks, and designs, devolves upon the Federal authorities. A patent granted under the Commonwealth law is afforded protection in all the States, and in the Territory of Papua, for sixteen years. The copyright in a book, the performing right in a dramatic or musical work, and the lecturing right in a lecture, continue for the author's life and fifty years after his death. The British Copyright Act, subject to certain modifications, is in force in the Commonwealth under the Copyright Act, 1912.

The registration of a trade-mark protects it for fourteen years, but may be renewed from time to time. An industrial design may be protected for five years, and the period extended to fifteen years, provided it is used in Australia within two years of registration.

Under the various Imperial and Federal Acts, arrangements may be made by means of reciprocal legislation for the protection in other countries of patents, copyrights, trade-marks, and designs. In all cases the rights of holders under the legislation of a State were conserved.

Public Trustee.

The Public Trustee exercises administrative functions in regard to estates in terms of the Public Trustee Act, 1913, as amended in 1923. The Public Trustee may act as trustee under a will, or marriage or other settlement; executor of a will; administrator under a will where the executor declines to act, is dead or absent from the State; administrator of intestate estates; and as agent or attorney for any person who authorises him so to act. In general the Public Trustee takes out probate or letters of administration in the Probate Court in the ordinary way, but he may file an election to administer in that court in certain cases in testacy or intestacy where the gross value of the estate does not exceed £400. He may act also as manager, guardian, or receiver of the estate of an insane or incapable person, or as guardian or receiver of the estate of an infant. He is a *corporation sole* with perpetual succession and a seal of office and is subject to the control and orders of the Supreme Court.

Where the net value of an intestate estate does not exceed £100, the Public Trustee may pay the whole amount direct to the widow, and he may apply the share of an infant, not exceeding £500, to the maintenance of the infant. As attorney or agent he may collect rents or interest on investments, supervise repairs, prepare taxation returns, and pay taxes, etc. Agents of the Trustee are appointed in towns throughout the State.

Operations are not conducted for profit, and the fees and commission chargeable are regulated to provide sufficient money to cover working expenses only. The accounts of the Public Trust Office are audited by the Auditor-General.

The following is a summary of the transactions during the last recent years:—

Particulars.	Year ended 30th June.				
	1926.	1927.	1928.	1929.	1930.
Estates received for Administration	1,975	2,217	2,219	2,376	2,246
	£	£	£	£	£
Amount Received*	1,695,240	1,150,719	1,202,317	1,542,600	1,293,118
Amount Paid*	1,012,371	1,183,629	1,165,359	1,362,891	1,042,154
Commission and Fees	35,538	40,002	44,538	45,171	44,857
Unclaimed Money—					
Paid into Treasury	89,731	22,430	9,280	26,434	11,902
Subsequently Claimed... ..	1,514	1,168	765	3,321	310
Credit Balances of Estates ...	3,642,624	4,163,622	4,670,686	4,908,651	5,600,624

* On behalf of estates.

The operations resulted in a profit of £4,708 in 1928-29 and £2,116 in the following year, the accumulated profits at 30th June, 1930, being £41,534.

JURY SYSTEM.

Crimes and misdemeanours prosecuted by indictment in the Supreme Court or Courts of Quarter Sessions must be tried before a jury of twelve persons, who find as to the facts of the case, the punishment being determined by the judge. Most civil cases may be tried before a special jury of four persons, or a jury of twelve persons, upon application and with the consent of the court. The jury in such cases determines questions of

fact and assesses damages. The procedure in relation to juries is governed principally by the Jury Act, 1912, and its amendments, and other Acts regulate special cases.

Persons liable to service on juries include, with certain exceptions, any man above the age of 21 years residing in New South Wales, and having a clear yearly income of £30 or more from real and personal estate, or a real and personal estate of the value of £300 or more. The principal exceptions are foreign subjects, who have not resided in New South Wales for at least seven years, and certain persons attainted of treason or felony. Men specially exempt include judges, members of Parliament, certain public officers, officers of the public service of the Commonwealth, members of the defence forces, employees of the State Governments, clergymen, barristers, solicitors, magistrates, police officers, doctors, dentists, chemists, schoolmasters, certain employees of banks, incapacitated persons, and men above the age of 60 years who claim exemption. Women are not liable for service on juries.

A jurors' list is compiled annually in October for each Petty Sessions District by the senior police officer. This list is made available for public inspection, and revised in December before a magistrate. Lists of persons qualified and liable to serve on special juries are prepared also. They include persons of prescribed avocations.

The jurors summoned to hear an issue are decided by lot. Accused persons and the Crown each have the right to challenge eight jurors in criminal cases, and twenty in capital cases, without assigning reasons. In civil cases twice the number of jurors required are summoned, and one-fourth of the number is struck off by each party to the case.

In criminal cases the verdict of the jury must be unanimous. Where agreement is not reached within twelve hours, the jury may be discharged, and the accused tried again before another jury. In civil cases the verdict of three-fourths of the jury may be accepted after six hours' deliberation, but failing agreement within twelve hours, the jury is discharged and a new trial held.

LEGAL PROFESSION.

The legal profession in New South Wales is controlled by regulations of the Supreme Court, which prescribe the conditions of entry to the profession, regulate studentships at law and specify the legal examinations which must be passed prior to admission to practice. Separate boards have been established to govern the admission of barristers and of solicitors.

Any solicitor duly admitted to practice has the right of audience in all courts of New South Wales, but the Supreme Court may suspend or remove from the roll any solicitor for proven misconduct or malpractice. Barristers have, in general, no legal right to fees for their services in court, but scales of charges for certain services rendered by solicitors are prescribed by regulation and in certain instances costs of suits are taxed off by an officer of the Supreme Court.

The following table shows the number of members of the legal profession in practice at intervals since 1911, and illustrates the increase in numbers in recent years:—

End of Year.	Barristers.	Solicitors.		
		Sydney.	Country.	Total.
1911	156	603	411	1,014
1921	185	681	431	1,112
1926	229	835	477	1,312
1927	227	858	494	1,352
1928	233	898	503	1,401
1929	233	972	517	1,489

The number of barristers at the end of 1929 included 32 King's Counsel. The number stated in the table does not include the District Court judges, the Master in Equity, magistrates, State officials who are barristers, non-practising barristers, nor those on the roll—but not resident—in New South Wales. There were also 63 certificated conveyancers.

Barristers are organised under the Council of the Bar of New South Wales, and solicitors under the Incorporated Law Institute of New South Wales. There is also a Society of Notaries.

Poor Persons' Legal Expenses.

Under the Poor Prisoners' Defence Act, 1907, a person committed for trial for an indictable offence may apply for legal aid for his defence before the jury is sworn. If the judge or committing magistrate considers that the person is without adequate means, and that such legal aid should be supplied, the Attorney-General may arrange for the defence of the accused and for payment of expenses of all material witnesses.

The Poor Persons' Legal Remedies Act, 1918, authorises judges to make rules regulating the practice and procedure, and the costs and fees payable in respect of proceedings to which poor persons are parties. Such proceedings may not be instituted without permission, and judges to whom applications for permission are made are authorised to act as conciliators. The rules made under this Act do not apply to criminal proceedings.

Barristers and solicitors have enrolled under this Act to give their services free of charge on being assigned in a proper case. Out-of-pocket expenses are paid by the Crown.

COURTS OF CIVIL JURISDICTION.

Courts of Petty Sessions (Small Debts Court).

A limited civil jurisdiction is conferred by the Small Debts Recovery Act, 1912, on magistrates and justices sitting as Small Debts Courts to determine, in a summary way according to equity and good conscience, actions for the recovery of debt or damages. The jurisdiction of these courts is limited to cases involving not more than £50. A police or stipendiary magistrate may exercise the full jurisdiction of the court, two justices of the peace may hear cases involving amounts up to £30, and one justice up to £5. In cases of indefinite demands jurisdiction extends only to cases involving £10, or, by consent of the parties, up to £30, but the courts may not deal with matters involving titles to freehold or future rights.

In general, appeal may be made from a decision of the court only when it exceeds its jurisdiction or violates natural justice.

The principal officers of the court are a registrar, who acts as clerk to the bench and may enter judgment in cases of default of defence, or where claims are admitted and agreed upon, and such bailiffs as are appointed from time to time for the service and execution of judgments.

Particulars of the transactions of Courts of Petty Sessions in their civil jurisdiction during the last five years are shown below:—

Year.	Plaints entered.	Verdicts for Plaintiff.		Executions issued.	Garnishee Orders issued.
		Number.	Amount.		
1925	70,798	29,278	249,418	9,807	5,205
1926	77,365	31,569	288,735	10,390	5,374
1927	84,740	34,633	336,058	11,646	6,337
1928	88,033	33,398	368,242	12,904	7,147
1929	92,016	39,153	395,233	14,321	7,239

In garnishee cases the Court may order that all debts due by a garnishee to the defendant may be attached to meet a judgment debt, and by a subsequent order, may direct the garnishee to pay so much of the amount owing as will satisfy the judgment debt. In respect of wages or salary, garnishee orders may be made only for so much as exceeds £2 per week. The garnishee cases in 1929 numbered 7,239.

DISTRICT COURTS.

District Courts have been in existence in New South Wales since 1858 as intermediaries between the Small Debts Courts and the Supreme Court. They are presided over by judges with special legal training, who have jurisdiction only over cases arising in districts allotted to them. **Sittings** are held at places and times appointed by the Governor-in-Council. In 1930 there were eight District Court Judges and sittings were arranged in sixty-three districts. The courts sit at intervals during ten months of the year in the Metropolis, and three or more times per year in important country towns. A registrar and other officers are attached to each court.

Ordinarily cases are heard by a judge sitting alone, but a jury may be empanelled by direction of the judge, or upon demand by either plaintiff or defendant, in any case where the amount claimed exceeds £20. The jurisdiction of the Court extends over issues of fact in equity, probate, and divorce proceedings remitted by the Supreme Court, and over actions at Common Law involving an amount not exceeding £400, or £200 where a title to land is involved.

The findings of the District Court are intended to be final, but new trials may be granted, and appeals may be made to the Supreme Court in certain cases.

Particulars of suits brought in District Courts in their original jurisdictions during the last five years are given in the following table:—

Year.	Causes Tried.		Causes Discontinued or Settled without hearing.	Judgment for Plaintiff by Default, Confession, or Agreement.	Causes referred to Arbitration.	Total Suits disposed of.	Total Suits arising during Year.	Causes Pending and in Arrear.
	Verdict for Plaintiff.	Verdict for Defendant (including Nonsuit, etc.).						
1925	752	309	2,764	4,846	3	8,674	8,874	4,351
1926	824	327	3,039	4,911	4	9,105	9,174	4,420
1927	896	369	3,249	5,780	14	10,308	11,155	5,267
1928	1,091	417	3,881	6,362	9	11,760	11,521	5,028
1929	1,353	451	3,665	7,405	9	12,833	14,144	6,289

Of the cases tried during 1929, 121 were tried by jury and 1,683 without a jury. The amount of judgment for plaintiffs during the year was £370,688.

In addition to the suits covered by the foregoing table a considerable amount of work is done in the District Courts under various Acts.

SUPREME COURT.

The Supreme Court of New South Wales was established in 1824 under the Charter of Justice. Jurisdiction is exercised by a Chief Justice and not more than eight Puisne Judges, of whom four are engaged usually in the Common Law and Criminal jurisdictions, and the remainder in Equity, Bankruptcy, Probate, Lunacy, and Matrimonial Causes.

The Court possesses original jurisdiction over all litigious matters arising in the State (other than special matters concerning land and industrial arbitration), in certain cases where extra territorial jurisdiction has been conferred, in Admiralty, and in appeal. Its original jurisdiction is exercised usually by one judge. The procedure and practice of the Court are defined by statute, or regulated by rules which may be made by any three or more judges. In proper cases appeals may be carried from findings of the Supreme Court to the High Court of Australia or to the Privy Council.

Particulars are given below of each division of the civil jurisdiction of the Court.

Common Law Jurisdiction.

The jurisdiction of the Supreme Court at Common Law extends to cases not falling within any other jurisdiction. Actions are tried usually in the first instance in sittings at nisi prius, before one judge and a jury of four, or of twelve in special cases. A jury may be dispensed with by consent of both parties and under statutes governing certain cases. A judge may sit "in chambers" to deal with questions not requiring to be argued in court.

The following table gives particulars of causes set down and writs issued in the Supreme and Circuit Courts (Common Law Jurisdiction) during the last five years. The number of writs issued includes cases which were settled by the parties without further litigation.

Particulars.	1925.	1926.	1927.	1928.	1929.
Writs Issued	6,645	6,625	7,386	7,560	8,139
Judgments Signed	3,247	3,182	3,549	3,643	3,928
Causes Tried—					
Verdict for Plaintiff	237	205	233	202	251
" Defendant	46	61	54	47	78
Jury Disagreed	2	2	1	1	1
Nonsuits	15	21	20	16	26
Total	300	289	308	266	356
Causes—					
Not proceeded with	218	345	311	396	400
Referred to Arbitration... ..	2	1	1	3	1
Total Causes dealt with	520	635	620	665	757

Litigation in this jurisdiction, as indicated by the number of writs issued, has increased steadily. The difference between the number of writs issued and judgments signed indicates the extent to which suits are not proceeded with, and the difference between the number of judgments signed and the number of causes tried indicates the extent to which cases are settled without legal proceedings in court.

Equity Jurisdiction.

The jurisdiction of the Supreme Court in Equity (which includes infancy) is exercised by the Chief Judge in Equity, by the Judge in Bankruptcy sitting in Equity, or by either sitting with two other Judges. The procedure of the Court is governed by the Equity Act, 1901, and subsidiary rules. The jurisdiction extends to granting equitable relief by enforcing rights not recognised at Common Law and by special remedies such as the issue of injunctions, writs of specific performance, and a jurisdiction in infancy. The Court in making binding declarations of right may obtain the assistance

of specialists such as actuaries, engineers, or other persons. In deciding legal rights incidental to its cases, it exercises all the powers of the Common Law jurisdiction of the Supreme Court, and may award damages in certain cases.

Attached to the Court there is a Master in Equity who performs administrative duties and performs judicial functions where directed in determining certain minor matters, such as conducting inquiries, taking accounts, and taxing costs. He is also Registrar of the Court, and controls the records and funds within its charge.

The transactions in Equity during the year ended 30th June, 1930, included the following:—Decrees 146; orders on motions and petitions 1,369; orders by Judge in Chambers 323, and by Master in Equity 8.

Lunacy Jurisdiction.

Jurisdiction in Lunacy in the Supreme Court is exercised as a separate jurisdiction by the Chief Judge in Equity. There is a Master in Lunacy (who is also Master in Equity) to perform administrative work and manage estates. The Court upon hearing evidence, with or without examination of the person, may declare any person to be of unsound mind or incapable of managing his own affairs, or it may direct that such question be determined by a jury of four or twelve persons. When such a declaration is made the Master in Lunacy may assume the management of such person's estate until his discharge or death, or a committee of management may be appointed subject to supervision by the Master in Lunacy.

The amount of trust funds of insane persons and patients vested in the Master in Lunacy at 30th June, 1930, was £914,695. In addition there were assets of considerable value in the form of scrip, bonds, mortgages, etc., and real estate. A deduction at the rate of 2 per cent. from the net income of estates of insane patients managed by the Master in Lunacy amounted in 1929-30 to £3,989 and the fees collected to £239.

Bankruptcy Jurisdiction.

Bankruptcy law and procedure in New South Wales were virtually codified by a consolidating Act passed in 1898. The State law has been superseded by the Bankruptcy Act of the Commonwealth which came into force on 1st August, 1928, so that the State Act applies only to matters not dealt with in the Federal Act, and to proceedings pending at 1st August, 1928.

Under the federal law any person unable to meet his debts may surrender his estate for the benefit of his creditors, or the latter may apply for compulsory sequestration under certain conditions provided the aggregate amount of indebtedness exceeds £50. Upon the issue of an order of sequestration the property of the bankrupt vests in the official receiver named in the order, and no creditor has any remedy against the property or person of the bankrupt except by appeal to the Court. Under certain conditions a bankrupt may compound with his creditors or enter into a scheme of arrangement, if approved by the Court.

An Inspector-General in Bankruptcy has been appointed under the Commonwealth Act, and bankruptcy jurisdiction in New South Wales, which forms one of the federal bankruptcy districts, is vested in the Supreme Court of the State. One judge in particular exercises the jurisdiction, but for purposes of convenience all the Supreme Court Justices are invested with bankruptcy jurisdiction. A Federal Court of Bankruptcy has been constituted also, in terms of an amending Act passed in July, 1930.

The Court has power to decide questions of priorities and other questions of law affecting a bankrupt estate. Questions of fact may be tried before a jury.

The Registrar in Bankruptcy has such duties as the Attorney-General of the Commonwealth directs, or as are prescribed, and he exercises powers of an administrative nature delegated by the Court. He may hear debtors' petitions, make full examination of bankrupts or of persons suspected to be indebted to a bankrupt, make sequestration orders, and grant orders of discharge where the applications are not opposed. There are deputy registrars in the country districts.

Official receivers who manage assigned estates for the benefit of creditors, act under the general authority and directions of the Registrar, and the receiverships are distributed amongst them by the Court. Persons registered by the Court as qualified to act as trustees, as well as official receivers, may be appointed by resolution of the creditors to manage sequestrated estates.

Particulars of the operations in New South Wales under the Bankruptcy Act of the Commonwealth are shown on page 219 of this Year Book.

Probate Jurisdiction.

Probate jurisdiction extends over all property, real or personal, in New South Wales of deceased persons, testate or intestate. The jurisdiction is exercised by a Probate Judge, or by any judge acting on his behalf. By probate rule of 18th October, 1906, the Registrar in Probate exercises jurisdiction in granting probate and letters of administration in all matters where no contention has arisen. The Registrar or any interested party may refer any matter to the Court. The Registrar also exercises jurisdiction in minor dealings affecting estates where no objection is raised by any interested party.

Until the granting of probate or letters of administration the property of deceased persons vests in the Chief Justice, and cannot be legally dealt with except in minor matters. In this way the rights of the successors, the creditors, and the State are safeguarded. Cases of disputed wills are tried by the Judge, with or without a jury, to determine issues of fact, and jurisdiction is exercised over administrators and executors.

The following table shows the number and values of estates dealt with in the past five years:—

Year.	Probates Granted.		Letters of Administration.		Total.	
	Number of Estates.	Gross Value of Estates.	Number of Estates.	Gross Value of Estates.	Number of Estates.	Gross Value of Estates.
		£		£		£
1925	3,988	17,432,389	2,076	2,401,356	6,064	19,833,745
1926	4,237	19,877,443	2,475	2,194,979	6,732	22,072,422
1927	4,369	21,880,669	2,554	3,550,107	6,923	25,430,776
1928	4,641	23,605,364	2,581	3,037,228	7,222	26,642,592
1929	5,355	23,010,133	2,795	3,079,249	8,150	26,089,382

The values shown above represent the gross value of estates, inclusive of those not subject to duty, and of estates dealt with by the Public Trustee. In some cases probate or letters of administration are taken out a second time and such estates are duplicated in the foregoing figures. Where estates are less than £300 in value probate or letters of administration may be granted on personal application to the Registrar, without the intervention of a solicitor.

Jurisdiction in Matrimonial Causes (Divorce).

This jurisdiction was conferred on the Supreme Court by the Matrimonial Causes Act, 1873, prior to which marriages could be dissolved only by special Act of Parliament. This Act, with its amendments, was consolidated in 1899. A Judge of the Supreme Court is appointed Judge in Divorce, but any other judge may act for him. The forms of relief granted are dissolution of marriage, judicial separation, declaration of nullity of marriage, and orders for restitution of conjugal rights. Orders for the custody of children, alimony, damages, and settlement of marriage property may be made. Decrees for the dissolution of marriage are usually made provisional for a short period, and absolute at the expiration thereof if no reason to the contrary is shown, *e.g.*, collusion.

The grounds on which dissolution may be granted on petition and the conditions as to domicile have been set out in previous issues of this Year Book.

The following statement shows the number of petitions in matrimonial causes made and granted in New South Wales during the past two years in comparison with the average per year in quinquennial periods since 1908:—

Year.	Petitions for Divorce, Judicial Separation, and Nullity of Marriage Lodged.	Number of Petitions Granted.					Restitution of Conjugal Rights.	
		Divorces.		Petitions for Judicial Separation Granted.	Nullity of Marriage.		Petitions.	Decrees granted.
		Decrees <i>Nisi</i> Granted.	Decrees <i>Nisi</i> made Absolute.		Decrees <i>Nisi</i> Granted.	Decrees <i>Nisi</i> made Absolute.		
1908-12*	453	260	260	12	4	4	28	18
1913-17*	642	393	342	9	3	3	74	51
1918-22*	1,041	672	562	13	7	5	236	141
1923-27*	1,391	992	903	13	9	8	266	168
1928	1,508	1,069	913	6	8	8	330	179
1929	1,595	1,132	1,066	17	17	12	315	192

* Average per year.

The number of petitions lodged in *forma pauperis* during 1929 was 477 of which 438 were for divorce, 4 for nullity of marriage, 3 for judicial separation, and 32 for restitution of conjugal rights.

The number of petitioners of each sex in cases where decrees for divorce or nullity of marriage were made absolute, or judicial separation was granted, during each of the past ten years was as follow:—

Year in which Petition was granted.	Number of Successful Petitions lodged by			Year in which Petition was granted.	Number of Successful Petitions lodged by		
	Husband.	Wife.	Total.		Husband.	Wife.	Total.
1920	267	300	567	1925	439	645	1,084
1921	389	418	807	1926	323	524	847
1922	296	397	693	1927	421	667	1,088
1923	314	438	752	1928	373	554	927
1924	359	486	845	1929	429	666	1,095

The proportion of the petitions lodged by husbands is about 40 per cent.

The grounds of suits in which decrees for divorce or nullity of marriage were made absolute during each of the past five years were as follow:—

Ground of Suit.	1925.	1926.	1927.	1928.	1929.
Adultery	252	189	257	190	249
Bigamy	7	6	7	8	6
Cruelty and Repeated Assaults	7	3	12	6	9
„ „ Habitual Drunkenness	23	19	16	20	15
Desertion	592	472	643	558	611
Habitual Drunkenness and Neglect to Support, or Neglect of Domestic Duties	17	24	9	12	21
Non-compliance with Order for Restitution of Conjugal Rights	169	119	121	125	156
Other	6	3	3	2	11
Total	1,073	835	1,068	921	1,078

In the 1,066 cases in which decrees for divorce were made absolute during 1929, the duration of marriage was as follows:—Under 5 years, 66; 5-9 years, 343; 10-14 years, 269; 15-19 years, 182. In 162 cases the duration was between 20 and 30 years; in 40 it was between 30 and 40 years; and in four between 40 and 50 years. In the case of 361 marriages there were no children; one child in 310 cases; two children, 184; three children, 105; four children, 46; and five or more children in 57 cases. In 3 cases, the details were not stated.

Admiralty Jurisdiction.

Jurisdiction as a Colonial Court of Admiralty was conferred on the Supreme Court of New South Wales on 1st July, 1911, by Order-in-Council, under the Colonial Courts of Admiralty Act (Imperial), 1890. The Court may sit also as a Prize Court by authority of a proclamation of August, 1914, under the Prize Courts Act (Imperial), 1894. Three causes of action arose during 1927.

Courts of Marine Inquiry.

Cases of shipwreck or casualty to British vessels, or the detention of any ships alleged to be unseaworthy, and charges of misconduct against officers of British vessels arising on or near the coast of New South Wales, or on any ship registered at or proceeding to any port therein, are heard by one or more authorised Judges of the District Court or Police or Stipendiary Magistrates sitting with two or more assessors as a Court of Marine Inquiry.

The proceedings of the Court are governed by the Navigation Acts of the State and Commonwealth.

Licensing Courts.

Under the Liquor Act of 1912 and its amendments, a Licensing Court in each of the licensing districts in New South Wales deals with applications for new licenses, renewals, removals, or transfers of existing licenses to manufacture or sell intoxicating liquors.

Three police magistrates, appointed as licensing magistrates, constitute the Licensing Courts for all the districts of the State. The same magistrates constitute the Licenses Reduction Board. They may delegate minor

functions to a police or stipendiary magistrate. The Court sits as an open court, and appeals from its decisions lie to the District Court.

Particulars relating to the operations of the Licensing Courts and the Licenses Reduction Board are shown in the chapter entitled "Social Condition."

Fair Rents Courts.

These courts were established under the Fair Rents Act, 1915, for the regulation of the rents of dwellings let at a rental not exceeding the rate of £3 per week. The jurisdiction was extended in 1926 to retail shops at rentals not exceeding £6 per week, but it was curtailed by an amendment passed in 1928, which provides also that the Fair Rents Act will cease to have effect on 1st July, 1933.

Particulars of the operations of the Courts are published in the chapter "Food and Prices" of this Year Book.

(Mining) Wardens' Courts.

By virtue of the Mining Act, 1906, and amendments, mining wardens may hold courts to determine disputes within their districts as to the possession of mining lands, or claims under mining contracts. In general their procedure is summary, and their decisions final, but appeal lies in certain cases to a District Court sitting as a Mining Appeal Court or, on points of law, by way of stating a case to the Supreme Court.

Taxation Courts of Review.

Judges of the District Courts have been authorised to sit as Taxation Courts of Review under the Land and Income Tax Act, 1895. The jurisdiction extends to the hearing and determining of appeals lodged against assessments by the Commissioner of Taxation by persons within the local jurisdiction of the Court. Points of law may be referred to the Supreme Court, but otherwise no appeal is allowed.

INDUSTRIAL TRIBUNALS.

A system of industrial arbitration was inaugurated in 1901, when courts of law were established to determine certain disputes between employers and employees relating to working conditions. The system has been changed fundamentally from time to time, and the statutory basis of the present system is the Industrial Arbitration Act, 1912, with subsequent amendments. The Industrial Arbitration (Amendment) Act, 1926, substituted an Industrial Commission for the former Court of Industrial Arbitration as from 15th April, 1926.

The constitution of the Industrial Commission, as provided by the Industrial Arbitration (Amendment) Act passed in December, 1927, consists of a President and two other members, holding office during good behaviour with the same status and rights as a puisne Judge of the Supreme Court. Persons eligible for appointment as a member of the Commission are puisne judges of the Supreme Court, District Court Judges, barristers of five years standing, and solicitors of seven years standing. The Commission has authority to adjudicate in cases of illegal strikes, lockouts or unlawful dismissal; to inquire into any industrial matter referred by the Minister; to determine a standard of living and to declare the living wage; to hold conferences regarding the settlement of any industrial matter; to hear appeals under the Act and to exercise the powers of the Board of Trade under the Monopolies Act. There is a Deputy Commissioner who exercises powers delegated by the Commission.

Conciliation committees may be established for various industries on the recommendation of the Industrial Commission. Their functions are to make awards governing working conditions. The committees have exclusive original jurisdiction in respect of industrial matters arising in industries for which they have been established.

Industrial magistrates are appointed under the Act of 1912, with jurisdiction over cases arising out of non-compliance with awards, and statutes governing working conditions of employees. Their powers are cognate with those of police magistrates.

Details of the constitution and operations of these tribunals are published in the chapter relating to "Industrial Arbitration."

Workers' Compensation Commission.

A special and exclusive jurisdiction was conferred on the Workers' Compensation Commission to determine all questions arising under the Workers' Compensation Act, which came into force on 1st July, 1926, and its amendments. The Commission is a body corporate, with perpetual succession, and it consists of a barrister of five years standing, appointed as chairman with the same status, salary, and rights as a District Court Judge, together with two members appointed for a period of seven years and representing employers and employees respectively. A medical referee may be summoned to sit as assessor with the Commission.

The Chairman alone decides points of law, but, on other matters the decision of the Commission is that of a majority of its members, and such decisions are to be based on the real merits of the case without strict observance of legal precedent. Either the chairman or a majority of the Commission may refer any question of law for the decision of the Supreme Court by way of stating a case, but otherwise the determinations of the Commission are final, and may not be challenged in any court.

For the purpose of conducting its proceedings the Commission has the powers of a Commissioner under the Royal Commissions Act, 1923.

During the year 1928-29, the Commission in open Court dealt with 1,259 applications for determination regarding the liability of employers to pay compensation and in Chambers considered 868 applications by dependants of deceased workers, or by workers under a legal disability. Further particulars relating to compensation are shown in the chapter relating to Employment.

*Land Boards.**

Local Land Boards each consisting of a salaried chairman, usually possessing legal and administrative experience, and of two other members (paid by fees) possessing local knowledge, were first appointed under the Crown Lands Act of 1884. These boards sit as open courts, and follow procedure similar to that of Courts of Petty Sessions. Their functions are to determine questions under the Crown Lands Acts, and other matters referred by the Minister. Sittings are held as required at appointed places in each of twelve Land Board Districts in the Eastern and Central Divisions of the State. There are also special Land Boards for the Yanco and Coomealla Irrigation Areas.

The Western Land Board which is charged with the management and control of Crown Lands in the Western Division of the State, discharges the functions of a local land board within the area of its jurisdiction.

*See, also, chapter on Land Legislation and Settlement.

Land and Valuation Court.

The Land Court of Appeal, established originally in 1889, was re-constituted at the close of 1921 as the Land and Valuation Court. This court is presided over by a judge, whose status is equal to that of a Judge of the Supreme Court, and who may sit as an open court at such places as he determines, with two assessors in an advisory capacity. The procedure of the court is governed by rules made by the Judge, who also exercises powers over witnesses and the production of evidence similar to those of a Judge in the Supreme Court. On questions of fact the decisions of the Judge are final, but appeal may be made to the Supreme Court against his decision on points of law.

Broadly stated, the functions of the court are to hear and determine the more important matters and appeals arising under the Crown Lands Acts and cognate Acts, cases involving the ratatableness of lands and the more important appeals from valuations made by the Valuer-General or by valuers under the Local Government Act.

COURTS OF FEDERAL JURISDICTION.

By the Commonwealth Judiciary Act, 1903-1927, jurisdiction under Federal laws is vested in the courts of the States within the limits of their several jurisdictions, as to locality, subject-matter, etc. Justices of the Peace are, however, precluded from exercising Federal jurisdiction. Certain Acts (*e.g.*, the Postal Act and Customs Act) also confer jurisdiction in special cases on State Courts. Bankruptcy jurisdiction under federal legislation is vested in the Supreme Court of New South Wales. A Federal Court of Bankruptcy was constituted in 1930.

There are two Commonwealth courts which possess certain jurisdiction, exclusive of State courts, viz., the High Court of Australia and the Commonwealth Court of Conciliation and Arbitration. An account of the latter court and of special industrial tribunals appointed under the Industrial Peace Acts is given in the chapter of this volume entitled "Industrial Arbitration."

The High Court of Australia was established in 1903, and consists of a Chief Justice and five puisne justices. Its principal seat is at the seat of Government, but sittings are held in the various States, and district registrars are appointed as required. The jurisdiction of the Court, which may be exercised in the first instance by one judge, is exclusive with regard to suits between States or any State and the Commonwealth, matters arising directly under a treaty, or writs of mandamus or prohibition against a Federal officer or court. The High Court is constituted also as a Court of Appeal for Australia. The Federal Court of Bankruptcy consists of one or two Judges appointed by the Governor-General by Commission.

LOWER COURTS OF CRIMINAL JURISDICTION.

Courts of Petty Sessions (Police Courts).

These Courts are held daily in large centres, and periodically, as occasion demands, in small centres. They operate under various statutes (chiefly the Crimes Act, 1900, Police Offences Act, 1901, and Vagrancy Act, 1902), which describe the nature of offences, penalties, and certain procedure, and prescribe the number of justices or magistrates for the trial of various offences. Cases are heard by a Stipendiary Magistrate in the Sydney, Broken Hill, Parramatta, Newcastle, Bathurst, and Wollongong districts, and in other districts by a Police Magistrate, or by Justices of the Peace. The procedure is governed in a general way by the Justices Act, 1902-18.

These courts deal with minor offences, which may be treated summarily, while serious charges are investigated in the first instance, and the accused committed to higher courts when a *prima facie* case is made out.

Offences punishable summarily by Courts of Petty Sessions include most offences against good order and breaches of regulations. Certain offences are made punishable summarily with the consent of the accused. The courts deal also with certain other cases, such as proceedings arising under the Master and Servants Act, the Deserted Wives and Children Act, Child Welfare Act, and administrative regulations.

Appeal against fine or imprisonment is heard by the Court of Quarter Sessions, but on a disputed point of law the magistrate may state a case for the Supreme Court.

Children's Courts.

Children's Courts were established by proclamation under the Infant Protection Act, 1904, and the Neglected Children and Juvenile Offenders Act, 1905, which were consolidated with other enactments by the Child Welfare Act, 1923. Each court consists of a special magistrate with jurisdiction within a proclaimed area. Elsewhere the jurisdiction of a court may be exercised by a special magistrate, or two Justices of the Peace. The magistrates exercise all the powers of a Police or Stipendiary Magistrate in respect of cases involving children as parties or witnesses to the exclusion of ordinary courts of law. By this means children are protected against the adverse influences which they would encounter in the ordinary courts.

The jurisdiction embraces proceedings concerning maintenance of infants, offences by or against children, and neglected or uncontrollable children. The Court is endowed with extensive powers, such as the committal of children to reformatory homes, release on probation, etc.

Appeal from its decision lies in proper cases to the Supreme Court, Quarter Sessions, or in certain circumstances to a District Court.

Separate statistics of the proceedings of Children's Courts are not available, as they are included with those relating to ordinary Courts of Petty Sessions.

Cases before Magistrates' Courts.

Particulars of the number of offences charged, and convictions obtained in Courts of Petty Sessions and Children's Courts, are shown below. Except where otherwise stated the figures represent the total number of offences charged, and where multiple charges are preferred at the same time, separate account is taken of each. The figures should not be used for the purpose of comparison with other States or countries, unless the same rules are observed in tabulating the statistics of crime. They are not comparable, for instance, with the statistics of Magistrates' Courts in the States of Victoria, South Australia, and Western Australia, where an accused person charged with a number of offences at the same time is counted once only:—

Year.	Offences Charged.				Per cent.		
	Withdrawn or Discharged.	Convicted.	Committed to Higher Courts.	Total.	With-drawn.	Con-victed.	Com-mitted to Higher Courts.
1911	8,878	65,058	1,178	75,114	11·8	86·6	1·6
1921	11,877	80,214	2,594	94,685	12·6	84·7	2·7
1926	14,199	100,644	1,832	116,675	12·2	86·2	1·6
1927	14,478	107,657	1,895	124,030	11·7	86·8	1·5
1928	15,140	119,936	2,003	137,079	11·0	87·5	1·5
1929	16,638	113,398	2,403	132,439	12·6	85·6	1·8

Toward the end of 1916 provision was made whereby persons arrested for drunkenness were allowed to forfeit a deposit (nominally bail) in lieu of appearing in court. The amount was originally fixed at 5s., the usual penalty imposed, but it has been increased to 10s. Approximately one-third of the cases of drunkenness are dealt with in this manner, and they are included in the statistics as convictions, as well as those cases where the offender is admonished and set free without penalty.

It is not possible to determine the number of distinct persons charged in each year, as particulars obtained from persons accused of minor offences, particularly vagrants, do not form a reliable basis for identification.

Only a small proportion of the offences for which summary convictions are effected are really criminal offences, that is, offences against person or property. The following table shows a classification of the offences for which summary convictions were recorded, also the rate per 1,000 of mean population:—

Year.	Number of Convictions for Minor Offences.					
	Against the Person.	Against Property.	Against Good Order.		Other Offences.	Total Summary Convictions.
			Drunkenness.	Other.		
1911	1,634	3,404	29,299	14,886	15,805	65,058
1921	2,127	5,924	28,702	18,086	25,375	80,214
1926	1,913	7,328	31,361	16,485	43,557	100,644
1927	1,924	8,114	32,649	17,401	47,569	107,657
1928	1,889	8,274	35,155	18,967	55,651	119,936
1929	1,930	9,677	33,136	18,846	49,809	113,398
Number per 1,000 of Mean Population.						
1911	1.00	2.04	17.60	8.94	9.49	39.07
1921	1.01	2.81	13.61	8.58	12.04	38.05
1926	0.82	3.16	13.51	7.10	18.76	43.35
1927	0.81	3.42	13.75	7.33	20.03	45.34
1928	0.78	3.41	14.49	7.82	22.93	49.43
1929	0.78	3.93	13.44	7.65	20.21	46.01

In recent years there has been a marked increase in convictions classified under the heading "other offences," which consist mainly of breaches of administrative law, *e.g.*, traffic regulations and local government by-laws. A large proportion are minor breaches or are committed through inadvertence or in ignorance of the law, and are met with the infliction of a fine. As local and other administrative activities have been extended, it is a natural corollary that an increase should occur in such offences. Thus the convictions under the traffic regulations increased from 4,192 in 1921 to 29,978 in 1928, and breaches of the Industrial Arbitration and the Factories

and Shops Acts from 982 to 2,329. The respective numbers in 1929, viz., 25,797 and 1,825 were lower than in 1928. Excluding offences of this class, the number of convictions per head of population in 1929 was approximately the same as in 1921 and somewhat lower than in 1911. It is noticeable, however, that there has been a steady increase in summary convictions for offences against property. Convictions for drunkenness, which increased in 1928, fell below normal in 1929.

Coroners' Courts.

The office of Coroner was established in New South Wales by letters patent in 1787, and is regulated by the Coroners Act, 1912, which consolidated previous laws.

Every Stipendiary or Police Magistrate has the powers and duties of a coroner in all parts of the State, except the Metropolitan Police District, which is under the jurisdiction of the City Coroner. In districts not readily accessible by Police Magistrates, a local resident, usually a Justice of the Peace, is appointed coroner.

At the discretion of the Coroner, inquiries are held into the causes of violent or unnatural deaths, into the causes of deaths in gaols, and into the origin of fires causing damage or destruction to property, but may be dispensed with where the Coroner deems inquiry unnecessary. The Coroner may order the attendance of any medical practitioner at the inquest, and may direct him to hold a post-mortem examination. On the evidence submitted the Coroner is empowered to commit for trial persons adjudged guilty of manslaughter, murder, or arson.

In certain cases a jury of six persons may be empanelled to find as to the facts of the case, and on their verdict against any person he may be committed for trial. The instructions to coroners provide that an inquest should be held into the cause of every death occurring among prisoners in gaols and lock-ups. In such cases a jury of six freemen and six prisoners is empanelled. Persons apprehended by the police subsequent to the decisions of coroners are charged in the Courts of Petty Sessions.

During 1929 sixteen persons were committed for trial by coroners on charges of murder, 30 for manslaughter, and 21 for arson. The coroners held inquiries into the origin of 201 fires and found that 27 fires were accidental, 57 were caused wilfully, and one was due to carelessness. In 116 cases the evidence was insufficient to indicate the origin.

HIGHER COURTS OF CRIMINAL JURISDICTION.

The higher courts of criminal jurisdiction consist of the Central Criminal Court (which sits in Sydney and is presided over by a Judge of the Supreme Court), of the Supreme Court on circuit, and of Courts of Quarter Sessions, held at important centres throughout the State, each presided over by a Judge of the District Court as chairman. The courts deal with indictable offences which are the more serious criminal cases. Offences punishable by death may be tried only before the Central Criminal Court, which exercises the criminal jurisdiction of the Supreme Court, or before the Supreme Court on circuit.

All persons charged with criminal offences must be charged before a judge with a jury of twelve chosen by lot from a panel provided by the sheriff. The jury finds as to the facts of the case, and its verdict must be unanimous. If unanimity is not reached within twelve hours, a verdict is not returned, and the accused may be tried again before another jury.

Courts of Quarter Sessions.

These Courts are held at times and places appointed by the Governor-in-Council, in districts which coincide with those of District Courts. Forty-three places were appointed in 1930, courts being held usually at the conclusion of District Court sittings, from two to four times a year in country centres, but eleven times in Sydney, and six times in Parramatta.

In addition to exercising their original jurisdiction, the courts hear appeals from Courts of Petty Sessions and certain appeals from other courts, *e.g.*, Licensing Courts. Appeals from Quarter Sessions are heard by the Court of Criminal Appeal.

Central Criminal Court and Supreme Court on Circuit.

The Central Criminal Court exercises the criminal jurisdiction of the Supreme Court in Sydney, and a Judge of the Supreme Court exercises a similar jurisdiction in circuit towns. Usually capital offences, the more serious indictable offences committed in the metropolitan area, and offences which may not be tried conveniently at Quarter Sessions, or at sittings of the Supreme Court in the country, are tried at the Central Criminal Court. Appeal from the finding of these courts lies to the Court of Criminal Appeal, consisting of three or more Judges of the Supreme Court and, in proper cases, to the High Court of Australia or the Privy Council. A Judge of the Supreme Court sitting in Sydney may act as a Court of Gaol Delivery, to hear and determine the cases of untried prisoners upon returns of such prisoners supplied by the gaolers of the State under rules of the Court.

Cases before Higher Criminal Courts.

The following table relates to the number of distinct persons charged before Courts of Quarter Sessions, sittings of the Supreme Court at circuit towns, and the Central Criminal Court, and it shows the number convicted for each of the classes of more serious offences. Where two or more charges were preferred against the same person, account has been taken only of the principal charge.

Year.	Distinct Persons Charged.	Not Guilty, etc.	Convictions—Principal Offence.				Total Persons Convicted	
			Against Person.	Against Property.	Against Currency, and Forgery.	Other Offences.	Number.	Per 10,000 of Population.
1911	979	441	141	313	48	36	538	3·23
1912	993	373	136	410	48	26	620	3·55
1913	1,125	353	189	478	60	45	772	4·24
1921	1,722	611	166	853	48	44	1,111	5·27
1926-27	1,181	437	156	515	23	50	744	3·17
1927-28	1,348	471	191	615	23	48	877	3·65
1928-29	1,369	523	179	588	31	48	846	3·46

In view of the facts that trials of accused persons in higher criminal courts take place on indictment by the Attorney-General, and usually after magisterial inquiry into the sufficiency of evidence for such trials, and that

the question of guilt is decided by a jury of laymen, it is interesting to note that less than two-thirds of the persons charged are convicted, and in the case of offences against the person, this proportion is less than one-half.

Of the persons convicted during the year ended 30th June, 1929, the males numbered 810 and females 36. The proportion per hundred thousand of each sex was: Males 65, females 3.

The following table shows the number of persons convicted for specific offences included in the foregoing statement:—

Offences.	Number of Offenders Convicted.				
	1911.	1921.	1926-27.	1927-28.	1928-29.
Murder	3	8	7	4	3
Attempted Murder, Shooting with Intent ...	3	3	2	2	3
Manslaughter	4	13	6	11	7
Rape and other Offences against Females ...	29	21	33	46	48
Unnatural Offences	2	23	15	39	25
Abortion and Attempts to Procure... ..	3	2	4	4	3
Bigamy	16	22	18	18	15
Assault	80	63	55	54	50
Burglary and Housebreaking	62	244	198	268	267
Robbery and Stealing from the Person ...	14	35	45	66	34
Stealing Horses, Cattle, Sheep	26	48	1	6	4
Embezzlement and Stealing by Servants ...	26	42	18	23	21
Larceny and Receiving	131	376	160	138	169
Fraud and False Pretences	38	80	59	69	54
Arson ... ..	...	1	4	5	4
Forgery, Uttering Forged Documents ...	41	44	22	23	25
Conspiracy	10	16	38	37	20
Serjury and Subornation	10	17	5	8	8

In so far as the number of persons convicted indicates the vogue of crime, the above statement shows that during post-war as compared with pre-war years, the increase in crime occurred principally in burglary and housebreaking. On the other hand considerable decreases took place in the number of assaults and cases of forgery.

COURTS OF APPELLATE JURISDICTION.

Generally speaking, appellate jurisdiction is exercised, in cases where appeals are permitted, by the District Courts and Courts of Quarter Sessions from Magistrates' Courts, by the Supreme Court from District Courts and Courts of Quarter Sessions, by the High Court of Australia from the Supreme Court, and (in certain cases) by the Privy Council from either of the two last-named courts. Appeal on points of law (usually by stating a case) may be made to the Supreme Court from any ordinary court of the State or from any special court (*e.g.*, Land, Industrial Commission, and Workers' Compensation Commission).

A Court of Criminal Appeal, presided over by Judges of the Supreme Court, was established in 1912.

Civil Appeals to the Supreme Court.

Three or more Judges of the Supreme Court may sit in its various civil jurisdictions (1) *in Banco*, to hear appeals from District Courts or from decisions of justices in chambers, and to consider motions for new trials

and kindred matters—in certain circumstances such cases may be heard by one justice; (2) as a Full Court of three or more justices, to hear appeals from orders and decrees made by one justice in the various jurisdictions of the court. One judge may sit in chambers to hear applications for writs of mandamus or prohibition, and to determine special cases stated by magistrates.

Particulars of the special cases and appeals during the last five years are shown below:—

Year.	Special Cases.		Appeals.					
			Common Law.		Equity, Probate, Bankruptcy, and Divorce.		District Courts.	
	Decision Sustained.	Decision reversed case withdrawn, etc.	Sustained.	Disallowed, withdrawn, etc.	Sustained.	Disallowed, withdrawn, etc.	Sustained.	Disallowed, withdrawn, etc.
1925	7	8	14	19	1	12	8	27
1926	12	6	16	23	5	11	5	21
1927	7	10	14	22	4	5	7	22
1928	17	15	20	19	4	7	11	20
1929	14	16	11	24	7	7	10	19

In 1929 there were 45 applications for writs of mandamus or prohibition, of which 26 were granted.

Appeals to the High Court of Australia.

Appeal to the High Court of Australia from judgments of the Supreme Court of New South Wales may be made in any case by permission of the High Court, and as of right in cases involving a matter valued at £300 or more, or involving the status of any person under laws relating to aliens, marriage, divorce or bankruptcy, provided that appeal lay to the Privy Council in such case at the date of establishment of the Commonwealth. Such appeal may be made even if a State law provides that the decision of the Supreme Court is final.

In 1929, 14 appeals were allowed, 14 were dismissed, and 5 were settled. Five applications for leave to appeal from judgments of the Supreme Court were refused in 1929.

Appeals to the Privy Council.

Appeals from Dominion Courts to the Crown-in-Council are heard by the Judicial Committee of the Privy Council by virtue of the royal prerogative to review decisions of all Courts of the Dominions, which can be limited only by Act of Parliament.

The cases which may be heard on appeal by the Judicial Committee were defined by Order-in-Council in 1909. Appeal may be made as of right from determinations of the Supreme Court involving any property or right to the value of £500 or more, and as of grace from the Supreme or High Court in

any matter of substantial importance, including criminal cases in special circumstances. Except where the High Court consents no appeal may be made to the Privy Council upon any question as to the limits *inter se* of the constitutional powers of the Commonwealth or States.

APPEALS IN CRIMINAL CASES.

Appeals to Quarter Sessions.

The right of appeal from Courts of Petty Sessions to Courts of Quarter Sessions lies against all convictions or orders by magistrates, excepting adjudication to imprisonment for failure to comply with an order for the payment of money, for the finding of sureties for entering into a recognisance or for giving security, and orders for the payment of wages and convictions for breaches of discipline under the Seamen's Act, 1898. The Appeal Court rehears the cases, deciding questions of fact as well as of law.

The result of appeals from Courts of Petty Sessions during the last five years are shown below:—

Year.	Cases in which Conviction or Order was—			Total Cases Concluded.	Cases not Concluded.
	Confirmed.	Varied.	Quashed.		
1925	402	102	152	656	130
1926	580	98	123	801	129
1927	578	101	137	816	144
1928	688	187	188	1,063	213
1929	821	195	237	1,253	180

Appeals are made in only 1 per cent. of the convictions in Magistrates' Courts. In 1929 convictions were quashed in 16 per cent. of the appeal cases concluded, and varied in 19 per cent. of such cases.

Court of Criminal Appeal.

The Court of Criminal Appeal was established by the Criminal Appeal Act of 1912, which prescribes that the Supreme Court shall be the Court of Criminal Appeal, constituted by three or more Judges of the Supreme Court as the Chief Justice may direct. Any person convicted on indictment may appeal to the Court against his conviction (1) on any ground which involves a question of law alone, or (2) with the leave of the Court or upon the certificate of the judge of the court of trial, on any ground which involves a question of fact alone, or of mixed law and fact, or any other ground which appears to the Court to be sufficient. With the leave of the Court, a convicted person may appeal also against the sentence passed on conviction. In such appeal the Court may quash the sentence and substitute another either more or less severe.

In addition to determining appeals in ordinary cases the Court has power, in special cases, to record a verdict and pass a sentence in substitution for the verdict and sentence of the Court of trial. It also may grant a new trial, either on its own motion or on application of the appellant.

The result of appeals to the Court of Criminal Appeal during the last five years is shown hereunder:—

Year.	Convictions Affirmed.	Convictions Quashed.	New Trials Granted.	Total Cases Decided.	Sentences Varied (included in Convictions Affirmed).
1925	57	2	4	63	6
1926	47	...	5	52	...
1927	60	1	7	68	5
1928	55	7	7	69	4
1929	73	5	2	80	14

POLICE.

THE police force of New South Wales is organised under the Police Regulation Act of 1899 and amendments. The Commissioner of Police, under direction of the Colonial Secretary, is charged with the superintendence of police, and is responsible for the organisation, discipline, and efficiency of the force. Superintendents and inspectors of police are appointed by the Governor as subordinates of the Commissioner. Sergeants and constables are appointed as required by the Commissioner, but such appointments may be disallowed by the Governor.

No person may be appointed constable unless he is of sound constitution, able-bodied, under the age of 30 years, of good character, and able to read and write. Any person who has been convicted of a felony, is in other employment, or keeps a house for the sale of liquor, is incapable of acting as an officer of police. A high physical standard is required of recruits.

Pension and gratuity rights accrue to officers who retire by reason of medical unfitness for duty, or on or after attaining the age of 60 years. Where an officer is disabled or killed in the execution of his duty, a special allowance not exceeding his salary at the time of disablement may be paid to him or his dependents. Particulars of the pension fund are shown in the chapter entitled "Social Condition."

The primary duties of the police are to prevent crime, to detect offenders and to bring them to justice, to protect life and property, to enforce the law, and to maintain peace and good order throughout the State. In addition, they perform many duties in the service of the State, *e.g.*, they act as clerks of petty sessions in small centres, as Crown land bailiffs, foresters, mining wardens, inspectors under Fisheries and other Acts, and they collect a large volume of statistical returns. In the metropolitan area the police regulate the street traffic.

New South Wales is divided into nine superintendents' districts, containing 687 police stations, and a police force numbering 3,658, of whom twelve are women, *viz.*, four matrons and eight special constables. The distribution of the force in December, 1929, was as follows:—

Classification.	Commissioner and Superintendents.	Inspectors.	Sergeants.	Constables.	Trackers.	Total.
General	12	65	582	2,418	23	3,100
Criminal Investigation Branch...	...	3	25	30	...	58
Others on detective work ... ..	...	...	42	130	...	172
Traffic ... ..	...	2	15	227	...	244
Mounted Traffic Patrol ... ..	...	...	1	15	...	16
Water ... ..	...	1	14	53	...	68
Total	12	71	679	2,873	23	3,658

The mounted police numbered 787, including the inspectors and superintendents, 171 sergeants, 510 constables, and 23 black trackers.

The following statement shows for various years since 1901 the strength of the police establishment (exclusive of trackers and women police) in

relation to the population. With a greater volume of administrative legislation their duties have been increased considerably during the period:—

Year.	Number of Police.	Inhabitants to each Policeman.	Year.	Number of Police.	Inhabitants to each Policeman.
1901	2,172	634	1927	3,105	774
1911	2,487	684	1928	3,439	712
1921	2,734	779	1929	3,623	684
1926	2,966	792			

During each period intervening between the years shown above there was a decline in the strength of the police force in relation to the population until 1926. Subsequently, the addition of 657 men restored the ratio to the same level as in 1911.

A comparative statement of the annual expenditure of the Police Department is shown below:—

Year ended 30th June—	Expenditure.				State Contribution to Superannuation Fund.
	Salaries.	Contingencies.	Total.	Per Head of Population.	
	£	£	£	s. d.	£
1911	392,602	99,951	492,553	5 11	24,000
1921	833,818	228,283	1,062,101	10 2	80,000
1926	949,842	258,222	1,208,064	10 6	153,650
1927	964,817	269,690	1,234,507	10 6	170,600
1928	1,111,101	291,853	1,402,954	11 8	165,200
1929	1,210,918	313,421	1,524,339	12 5	167,450
1930	1,286,700	353,990	1,640,690	13 3	175,525

PRISONS.

A PRISON may be established by proclamation of the Governor, at any premises prepared and maintained as a prison at the public expense. A Comptroller-General is appointed by the Governor for the care of prisons and custody of convicted prisoners. Persons in custody awaiting trial are held by the Comptroller-General for the Sheriff.

All prisons must be visited at least once each week by a magistrate appointed to be "Visiting Justice," who may enter and inspect, and report to the Chief Secretary upon any matter connected with the gaol as often as he deems necessary. Such justice may hear and determine complaints against prisoners and award as punishment a term of solitary confinement. In addition Judges of the Supreme Court may visit prisons and sit as a Court of Gaol Delivery to determine cases of untried prisoners.

At 30th June, 1929, there were 23 gaols in New South Wales. Six were classed as principal gaols, 8 as minor, and 9 as police gaols. The principal gaols were the State Penitentiary for men and the State Reformatory for Women—both at Long Bay, Sydney—and the gaols at Parramatta, Bathurst, Goulburn, and Maitland. Each of these gaols is used for a particular class of prisoners.

The State Penitentiary is used for prisoners awaiting trial, etc., and those sentenced at metropolitan courts to short periods of detention, and it is a centre from which long-sentence prisoners are distributed to country establishments. The State Reformatory is used for female prisoners of all classes. At Goulburn Gaol special treatment is provided for first offenders, and at Bathurst and Parramatta prisoners convicted more than once are imprisoned.

The smaller gaols are used for prisoners undergoing short sentences, and for the detention of those who require special treatment apart from other long-sentence prisoners. Among the minor gaols are the Afforestation Camps at Tuncurry, Bombala, Mount Mitchell and the Emu Plains Prison Farm. At the Prison Farm, prisoners—usually first offenders—under 25 years of age are trained in farm work; at Tuncurry older men are employed on a pine plantation, and similar work is provided at other afforestation camps opened in August, 1927, and 1928, respectively. At these establishments the conditions of gaol life are modified with the object of befitting the men to lead useful lives after release, and for this reason the prisoners sent to the camps are selected with discrimination. The Shaftesbury Inebriate Institution, which was classed as a minor gaol, was used mainly for the treatment of inebriates. It was closed in 1929. An account of its operations is shown in the chapter entitled "Social Condition."

The police gaols are used for the detention of persons sentenced in the various districts for periods not exceeding fourteen days.

In the larger gaols the prisoners are classified according to character and previous record, and the principle of restricted association is in operation.

PRISONERS.

The number of gaol entries during various years since 1901 and the number of prisoners in gaol at the close of each year are shown below. The figures are exclusive of persons detained under the Inebriates Act:—

Year.	Number of Gaol Entries during Year.	Prisoners under Sentence.							
		Received during Year.				In Prison at end of Year.			
		Males.	Females.	Total.	Per 1,000 of Population.	Males.	Females.	Total.	Per 10,000 of Population.
1901	14,361	8,899	2,941	11,840	8.6	1,605	207	1,812	12.3
1911	9,532	6,086	1,347	7,433	4.5	1,134	115	1,249	6.9
1921	8,817	5,541	1,073	6,614	3.1	1,272	97	1,369	6.0
1925-26	8,750	5,811	1,059	6,870	3.0	1,378	85	1,463	6.1
1926-27	8,158	5,248	941	6,189	2.6	1,434	69	1,503	6.1
1927-28	9,414	6,134	958	7,092	3.0	1,690	85	1,775	6.9
1928-29	10,033	6,530	1,093	7,623	3.1	1,710	89	1,799	6.8
1929-30	11,271	7,378	1,286	8,664	3.5	1,749	94	1,843	7.4

The number of gaol entries shown in the table includes convicted persons, persons awaiting trial, debtors, naval and military offenders, and persons on remand, some of whom were received and counted several times.

The number of persons received into prison under sentence, counted once each time received, in 1929-30 was 8,664, viz., males 7,378, and females 1,286. The total number was 27 per cent. lower than in 1901. When considered in relation to the population, the decrease appears more remarkable, as the number of prisoners received into gaol under sentence declined from 8.6 per 1,000 of population in 1901 to 3.5 in 1929-30. The decrease is due mainly to a diminution in imprisonment for minor offences dealt with by Courts of Petty Sessions.

The number of distinct persons received into gaol under sentence in 1929-30 was 6,595, of whom 766 were women.

The number of convicted persons in gaol at the end of the year 1929-30 showed a marked increase over the number twelve months earlier. Nevertheless, the number at 30th June, 1930, was only slightly greater than in 1901, and in proportion to the population it was lower by 40 per cent.

The sentences imposed on the prisoners received into gaol during the years ended 30th June, 1929 and 1930, were as follows:—

	1928-29.	1929-30.
Not exceeding one week	2,091	2,393
Over one week and not exceeding one month ..	2,295	2,573
Over one month and not exceeding six months ..	1,927	2,084
Over six months and not exceeding one year ..	424	470
Over one year and not exceeding two years ..	242	285
Over two years and not exceeding five years ..	79	88
Over five years and not exceeding ten years ..	2	15
Over ten years .. .. .	..	5
Life	3	3
Death .. .. .	..	3
Term not specified	560	745
Total	7,623	8,664

Capital punishment may be inflicted in New South Wales, but executions are unusual. Since the beginning of the year 1918 there have been four executions—two in 1924, and two in 1927.

The prisoners remaining in gaol under sentence on 30th June, 1930, numbering 1,843, included 55 serving life sentences, and 79 who had been declared habitual criminals and sentenced for an indefinite period.

The system of indeterminate sentences was introduced in terms of the Habitual Criminals Act, 1905, which empowers a judge to declare as an habitual criminal any person convicted for the third or, in some cases, the fourth time of certain criminal offences, as specified in the Act. The declarations were made only in the case of convictions on indictment until the Act was amended in 1924 to extend the system to persistent offenders, who are convicted summarily. In such cases a stipendiary or police magistrate may direct that an application be forwarded to a Judge of the Supreme Court or a Court of Quarter Sessions to have the prisoner declared an habitual criminal.

In gaol, the habitual criminal serves the definite sentence imposed for the offence of which he has been convicted, then he is detained for an indefinite term, until he is deemed fit for freedom. The indeterminate stage is divided into three grades—intermediate, higher, and special. A minimum period of 4 years 8 months must be spent in the lower grades before the prisoner can gain admission to the special grade, wherein cases may be brought under consideration with a view to release on license. After release he is required to report to the authorities at stated intervals during a period specified in the license.

The Habitual Criminals Act prescribes that while under detention as an habitual criminal every prisoner must work at some useful trade, and receive a share of the proceeds of his work. As the majority of these persons have not been trained in any branch of skilled labour, facilities are afforded them, while serving the definite term, to acquire training in some remunerative employment.

Twenty-two men were declared habitual criminals during the year ended 20th June, 1929, and 18 in the following year. At 30th June, 1930, there were under detention 29 men who had not yet completed the definite period of their sentence, and 50 men who had passed into the indeterminate stage.

Among the special classes of prisoners are those known as "maintenance confinees," who have been imprisoned for disobeying orders of the courts for the maintenance of their wives and children. Such prisoners are required to work, and the value of the work, after deducting the cost of the prisoner's keep, is applied towards the satisfaction of the orders for maintenance, etc.

During 1928-29 the number of maintenance confinees received into gaol was 449, as compared with 388 during the year 1927-28. Gaol earnings to the amount of £2,657 were paid to dependants of confinees during the year. Eight confinees paid the amount of their orders from gaol earnings, and 84 partly from gaol earnings.

Sickness and Mortality in Gaols.

The medical statistics of prisons show that, with an average daily number of 1,832 inmates during 1928-29, the total number of cases of sickness treated in hospital was 619. Eight prisoners died, and 14 were released on medical grounds. The death rate per 1,000 of the average number of inmates was 4.4. There were no executions during the year.

Particulars relating to cases of venereal diseases amongst prisoners and those detained in lock hospitals are shown in the chapter entitled "Social Condition."

Industrial Activity in Prison Establishments.

It is accepted as a principle that useful employment is one of the most important factors in promoting discipline and good conduct in the gaols and in reforming those who have lapsed into crime. Therefore employment at industries calculated to inspire interest, to encourage some degree

of skill, and subsequently to prove remunerative, is provided under the supervision of competent instructors. The principal activities are farming, gardening, bread-baking and minor manufactures, and the scope for employment in skilled trades is being extended steadily. Under a system introduced in April, 1922, prisoners may receive payment for work produced in excess of a fixed task.

In 1928-29 the value of prisoners' labour amounted to £95,491, excluding work at police gaols.

BIRTHPLACES, RELIGIONS, AND EDUCATION OF PRISONERS.

The number of persons serving sentences in gaols at 30th June, 1929, were distributed according to birthplaces and to religions as follow:—

Birthplace.	Males.	Females.	Total.	Religion.	Males.	Females.	Total.
New South Wales ...	950	48	1008	Church of England	730	35	765
Other Australian ...	282	16	298	Roman Catholic ...	595	42	637
New Zealand ...	48	2	50	Methodist ...	56	...	56
England and Wales ...	152	5	157	Presbyterian ...	136	4	140
Scotland ...	49	2	51	Other Christian ...	35	...	35
Ireland ...	34	6	40	Non-Christian ...	17	...	17
Other British ...	22	...	22	No religion ...	49	...	49
Foreign Countries ...	71	2	73	Not stated ...	2	...	2
Not stated ...	2	...	2	Total ...	1,620	81	1,701
Total ..	1,620	81	1,701				

Eight prisoners were illiterate, 6 could read English, but could not write, and 8 could read and write in a foreign language only.

REMISSION OF SENTENCES.

First Offenders.

Special provision is made by the Crimes Act, 1900, and its amendments, for lenience towards any person convicted of a minor offence and sentenced to imprisonment, provided such person has not been convicted previously of an indictable offence. The term "minor offence" includes offences punishable summarily, and any other offence to which the court applies these provisions of the Act. In such cases the execution of the sentence is suspended upon the offender entering into recognisance to be of good behaviour for a fixed period, which may not be less than twelve months. Such persons are required to undergo an examination to facilitate future identification and to report periodically to the police. During the period of probation they may be arrested and committed to prison for the term of sentence imposed for any breach of the conditions of their release.

The hearing of charges against female first offenders must be in private unless the defendant elects to be heard in open court, and reports of such cases may not be published. In terms of an amending Act passed in 1929 this law does not apply to cases of larceny in retail shops.

The following table shows particulars concerning persons released as first offenders in the various years since 1901; cases of children released on probation by the Children's Courts are not included.

First Offenders Released on Probation.				First Offenders Released on Probation.			
Year.	By Higher Courts.	By Magistrates Courts.	Total.	Year.	By Higher Courts.	By Magistrates Courts.	Total.
1901	156	23	179	1927	30	364	394
1911	220	61	281	1928	*	*	*
1921	246	395	641	1929	21	436	457
1926	29	502	531				

* Not available.

Prisoners released on Probation.

By good conduct and industry certain classes of prisoners may gain the remission of part of their sentences. They are released on license on terms similar to those applied to first offenders as described above.

The licenses operate for the unexpired portion of the sentence, and a breach of the conditions of release may be punished by the cancellation of the license, and recommittal to gaol for the balance of the sentence. During the year ended 30th June, 1929, licenses were granted under the Crimes Act to 64 men and one woman, and in the following year to 97 men and two women.

COST OF ADMINISTRATION OF JUSTICE.

The following table shows the amount expended by the State in the administration of justice, in the protection of property, and in the punishment of criminals, in New South Wales during 1920-21, 1925-26, and in each of the last three years; also the amount of fines and fees, and net returns from prisoners' labour paid into the Consolidated Revenue:—

Expenditure and Revenue.	1920-21.	1925-26.	1927-28.	1928-29.	1929-30.
Expenditure—					
Law Administration—	£	£	£	£	£
Salaries, Pensions, etc., of Judges	59,106	61,434	63,988	67,693	68,091
Other	288,742	379,158	387,156	418,697	409,933
	347,848	440,592	451,144	486,390	478,024
Police—					
Administration, etc. ...	1,062,201	1,208,064	1,402,954	1,524,339	1,640,690
Payments to Pension Fund ...	80,000	153,650	163,200	167,450	175,525
	1,142,201	1,361,714	1,566,154	1,691,789	1,816,215
Prisons	126,122*	187,284	200,769	212,131	226,908
Total Expenditure ...	1,616,171	1,989,590	2,220,067	2,390,310	2,521,147
Revenue—					
Fees	100,188	149,332	179,059	201,659	220,140
Fines and Forfeitures ...	45,303	47,332	59,058	63,969	88,765
Receipts by Prisons Department	212	15,380	11,979	10,107	18,312
Total Revenue ...	145,703	212,044	250,096	275,735	327,217
Net Cost	1,470,468	1,777,546	1,969,971	2,114,575	2,193,930
Expenditure per Head of Mean					
Population—	s. d.	s. d.	s. d.	s. d.	s. d.
Law Administration ...	3 4	3 10	3 9	4 0	3 10
Police	10 11	11 10	13 1	13 10	14 8
Prisons	1 2	1 8	1 8	1 8	1 10
Total Expenditure ...	15 5	17 4	18 6	19 6	20 4
Revenue	1 5	1 10	2 1	2 1	2 8
Net Cost	14 0	15 6	16 5	17 3	17 8

* Calendar year preceding.

The expenditure on law administration includes the salaries, etc., of judges, and the expenditure of the Departments of the Attorney-General

and of Justice, except the expenditure on prisons, which is shown separately, and on sub-departments not directly concerned in the administration of the law, and certain other expenses.

The expenditure by the Police Department shown above is not absorbed solely by police services proper, since the members of the police force perform extensive administrative services for other Departments of State.

The receipts of the Prisons Department as stated in the table do not include the value of work done by the prisoners for the prisons and Government departments.

AGRICULTURE

AREA OF AGRICULTURAL LANDS.

A brief historical note on the growth of agriculture was published on page 709 of the Official Year-book, 1921, and a comparison of the areas cultivated in divisions of the State since 1905 appeared on page 712.

The progress of cultivation since 1891, in quinquennial periods, is shown in the following table:—

Years ended June—	Annual Average Area under—		Acres per Inhabitant under—	
	Cultivation and Sown Grasses.	Crops.	Cultivation and Sown Grasses.	Crops.
	acres.	acres.		
1891-95	1,398,199	1,048,554	1.18	0.88
1896-00	2,252,649	1,894,857	1.73	1.46
1901-05	2,942,506	2,436,765	2.10	1.74
1906-10	3,575,873	2,824,253	2.34	1.84
1911-15	5,187,850	4,025,165	2.93	2.27
1916-20	6,011,049	4,615,913	3.09	2.37
1921-25	6,599,048	4,665,362	3.04	2.15
1921	6,280,517	4,464,342	3.01	2.14
1922	6,451,363	4,445,848	3.03	2.09
1923	6,619,538	4,694,088	3.05	2.11
1924	6,738,958	4,808,046	3.05	2.18
1925	6,904,866	4,911,148	3.06	2.18
1926	6,559,272	4,541,423	2.85	1.98
1927	6,632,602	4,595,711	2.82	1.96
1928	7,175,367	4,994,515	2.99	2.08
1929	7,641,853	5,440,762	3.12	2.22

More than 80 per cent. of the area under crop is sown with wheat, and as other individual crops are of relatively small extent, the fluctuations in the area under crops are due mainly to variations in the extent of wheat-growing.

The area of land under sown grasses (2,201,091 acres in 1928-29) consists principally of lands in the coastal districts, cleared and sown with grasses for the maintenance of dairy stock.

Particulars obtained in 1929 indicated that there were approximately 23,150,000 acres of alienated land (inclusive of that required to depasture working horses and milking cows necessary on the farm) which, in the opinion of the occupier, was suitable for cultivation after the removal of standing timber. A small proportion of the land included in this area (which represented one-third of the total alienated land) is situated in districts where the rainfall has not yet been found adequate for agricultural production on a commercial scale. Included in the designation "alienated land" are lands in course of alienation and certain lands held under perpetual lease. The area of Crown lands suitable for cultivation has not been ascertained, but it is extensive.

The following table shows the divisional distribution of agricultural lands during the season 1928-29. The divisions referred to are shown on the map forming the frontispiece of this Year Book:—

Division.	Total Area of Division.	Area of Alienated and Crown Lands under—			Area of Alienated Land Occupied in Holdings of 1 acre and over—*		
		Occupation in Holdings of 1 acre and over.	Crops.	Sown Grasses.	Suitable for Cultivation.	Under Crops, 1928-29.	Proportion of Suitable Area Cultivated.
	000 acres.	000 acres.	000 acres.	000 acres.	000 acres.	000 acres.	per cent.
Coastal—							
North Coast	6,915	4,859	103	1,636	482	103	21·3
Hunter and Manning ..	8,395	5,394	93	301	429	93	21·7
Metropolitan	959	319	31	2	135	30	22·4
South Coast	5,968	2,546	47	152	320	47	14·7
Total	22,237	13,118	274	2,091	1,366	273	20·0
Tableland—							
Northern	8,119	6,505	64	12	376	64	16·9
Central	10,716	7,689	363	16	1,531	357	23·3
Southern	7,061	5,616	40	7	330	40	12·2
Total	25,896	19,810	467	35	2,237	461	20·6
Western Slopes—							
North	9,219	8,197	422	2	1,451	416	28·6
Central	7,723	6,844	933	10	3,849	922	24·0
South	11,222	9,595	1,299	21	4,655	1,272	27·3
Total	28,164	24,636	2,659	33	9,955	2,610	26·2
Central Plains—							
North	9,580	7,492	127	1	972	115	11·9
Central	14,811	13,413	234	1	2,305	279	12·1
Riverina	17,028	15,993	1,616	40	6,163	1,529	24·3
Total	41,419	36,903	2,027	42	9,440	1,923	20·4
Western	80,312	79,037	14	..	145	9	6·2
All Divisions ..	198,028	173,504	5,441	2,201	23,147	5,276	22·8

* Total area of alienated land in holdings of 1 acre and over used for pastoral and agricultural purposes was 72,208,029 acres, including lands in course of alienation and certain lands under perpetual lease.

The divisions in this table, as published prior to 1922, were arranged on a county basis, but as the statistics of 1922-23 and subsequent years have been collected with the shire as the unit of area, a re-alignment of the territorial divisions had to be undertaken. This alteration involved considerable changes in the totals of individual divisions, so that only a few of them are comparable with those for 1921-22 and earlier years.

NUMBER OF AGRICULTURAL HOLDINGS.

A consideration of the number of holdings on which land was cultivated, and the number of crops grown, affords guidance as to the popularity of the various crops.

The number of cultivated holdings, and the number of crops cultivated on them at intervals since 1900-01 are shown in the following statement.

Kind of Crop.	Number of Holdings upon which Crop was grown.					
	1900-01.	1905-06.	1915-16.	1926-27†.	1927-28.†	1928-29†.
Wheat	20,149	19,049	22,453	17,135	16,817	17,134
Maize	17,569	17,475	14,869	15,475	16,661	14,151
Barley	2,246	1,755	2,538	1,446	1,229	1,250
Oats	11,547	10,740	13,723	15,995	15,064	15,927
Rice ... ..	...	...	...	66	127	221
Potatoes	9,521	8,552	4,643	3,527	3,453	2,428
Tobacco	31	98	97	95	102	89
Sugar-cane	1,214	1,113	694	931	855	926
Grapes	1,832	1,530	1,388	1,687	1,697	1,678
Orchards‡—Citrus	1,905	2,385	5,787	5,229	5,704	5,368
Other	8,064	6,846	8,760	6,294	6,538	6,224
Market Gardens ...	2,266	2,842	3,301	1,916	1,882	1,459
Total Cultivated Holdings* ...	45,828	46,349	50,728	48,639†	49,225†	48,000†

* Holdings on which more than one crop was grown are included once only. † Excluding crops of less than one acre, which were included in 1925-26 and earlier years. ‡ Orchards are included in both groups if citrus as well as other fruits are grown. The number of orchards of one acre or more were 8,016 in 1926-27; 8,397 in 1927-28 and 8,279 in 1928-29.

The number of farms on which wheat is sown has declined notwithstanding a large increase in the area devoted to this crop. Small areas of maize and oats are cultivated by many farmers for use on their farms. Consequently, the holdings with these crops are nearly as numerous as those on which wheat is produced, though the area under wheat is many times greater than the area under maize or oats. Moreover, portion of the area under wheat—varying from one-fourth to one-seventh—is cultivated on the “shares” system, by which a number of growers may be engaged in cultivating one holding.

The total number of holdings of one acre and upwards used for agricultural and pastoral purposes in 1928-29 was 77,659, and areas one acre or more in extent were cultivated on 48,000 holdings. Only 10,153 holdings were used exclusively for agricultural purposes. In addition, 17,353 holdings were used for agricultural and pastoral pursuits combined, 2,942 for agriculture with dairying, 1,189 for all three pursuits combined, and a limited

amount of cultivation of a non-commercial character was conducted in connection with other activities. There were, in all, 29,659 holdings without any cultivated land.

AGRICULTURAL PRODUCTION.

The area and production of the principal crops of New South Wales are shown below. The year ended 30th June, 1916, in which, as the result of special war-time appeal, the area cultivated was greater than in any other season, has been included for comparative purposes:—

Crop.	1915-16.	1925-26.	1926-27.	1927-28.	1928-29.
Wheat (grain)—					
Area acres	4,188,865	2,925,012	3,352,736	3,029,950	4,090,083
Total yield bush.	66,764,910	33,805,500	47,541,000	27,042,000	49,257,000
Average yield p.a. ... bush.	15·9	11·6	14·2	8·9	12·0
Maize—					
Area acres	154,130	120,955	128,516	148,801	106,835
Total yield bush.	3,773,600	3,278,350	3,598,530	3,930,570	2,506,470
Average yield p.a. ... bush.	24·5	27·1	28·1	26·4	23·5
Oats (grain)—					
Area acres	58,636	101,097	105,115	114,988	126,743
Total yield bush.	1,345,698	1,615,650	1,898,750	1,654,560	2,183,880
Average yield p.a. ... bush.	23·0	16·0	18·1	14·4	17·2
Rice—					
Area acres	...	1,556	3,958	9,891	14,027
Total yield bush.	...	61,098	214,742	879,113	1,307,520
Average yield p.a. ... bush.	...	39·3	54·3	88·9	93·2
Hay—					
Area acres	1,108,919	750,605	625,616	680,919	684,730
Total yield tons	1,573,938	866,275	877,767	754,176	793,255
Average yield p.a. ... tons	1·42	1·15	1·40	1·11	1·16
Green Crops—					
Area acres	162,945	479,464	217,439	848,042	264,699
Potatoes—					
Area acres	19,589	22,731	21,941	21,578	14,830
Total yield tons	44,445	43,137	53,288	47,397	26,339
Average yield p.a. ... tons	2·27	1·90	2·43	2·19	1·78
Sugar-cane—					
Area cut acres	6,030	8,688	10,128	8,556	6,733
Total yield tons	157,748	297,335	230,254	206,612	147,414
Average yield p.a. ... tons	26·16	34·22	22·73	24·33	21·70
Fruit—					
Area acres	63,823	89,003	88,968	91,879	91,209
Market Gardens—					
Area acres	10,967	8,985	8,230	7,729	7,709
Total yield £	400,860	682,726	661,443	619,017	689,440
Average yield p.a. ... £	36·6	76·0	80·3	80·1	89·4
All other Crops—					
Area acres	26,843	35,445	34,649	25,939	35,334
Total Area* acres	5,800,747	4,543,541	4,597,296	4,998,272	5,442,982

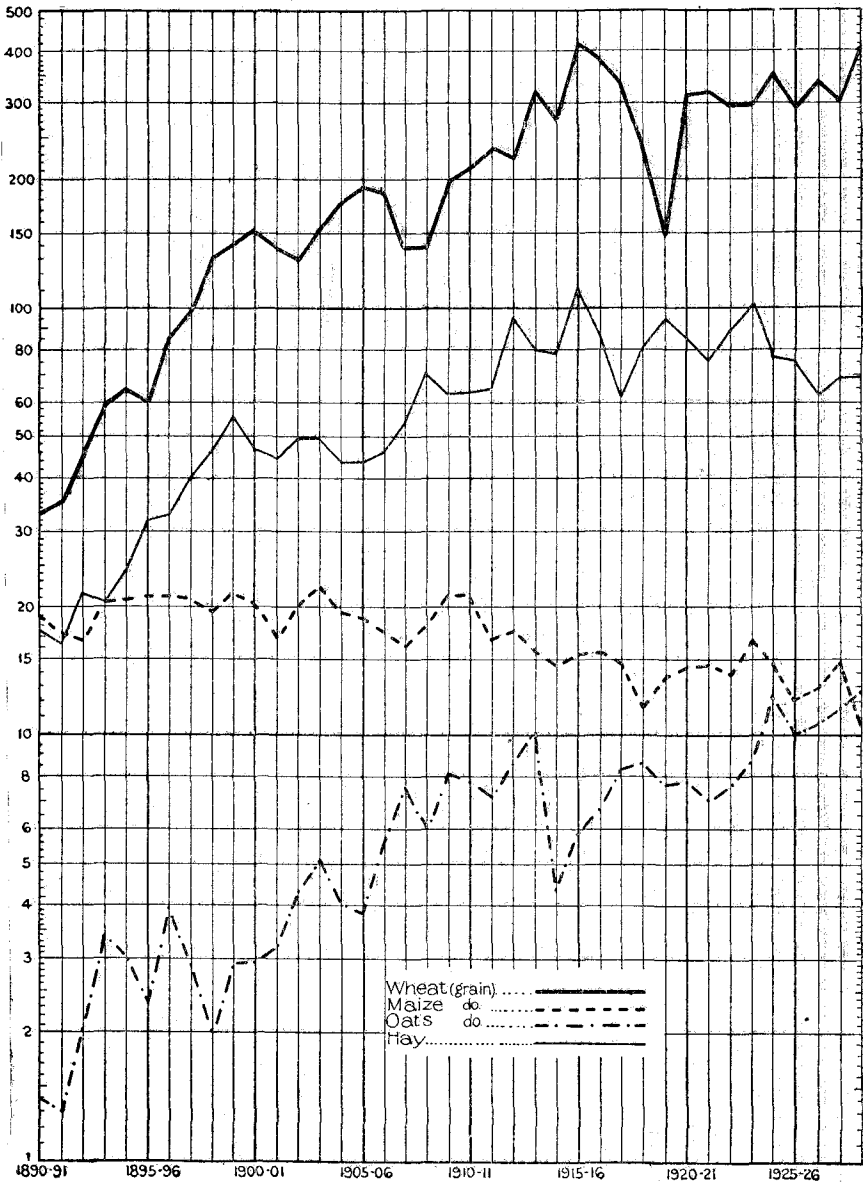
* Including area double-cropped.

It will be observed that wheat is the only crop extensively grown. The larger part of the area cut for hay is sown with wheat, but considerable proportions are used for the production of oats and lucerne hay.†

† See page 576.

AREA UNDER PRINCIPAL CROPS, 1890-91 to 1928-29.

Ratio Graph.

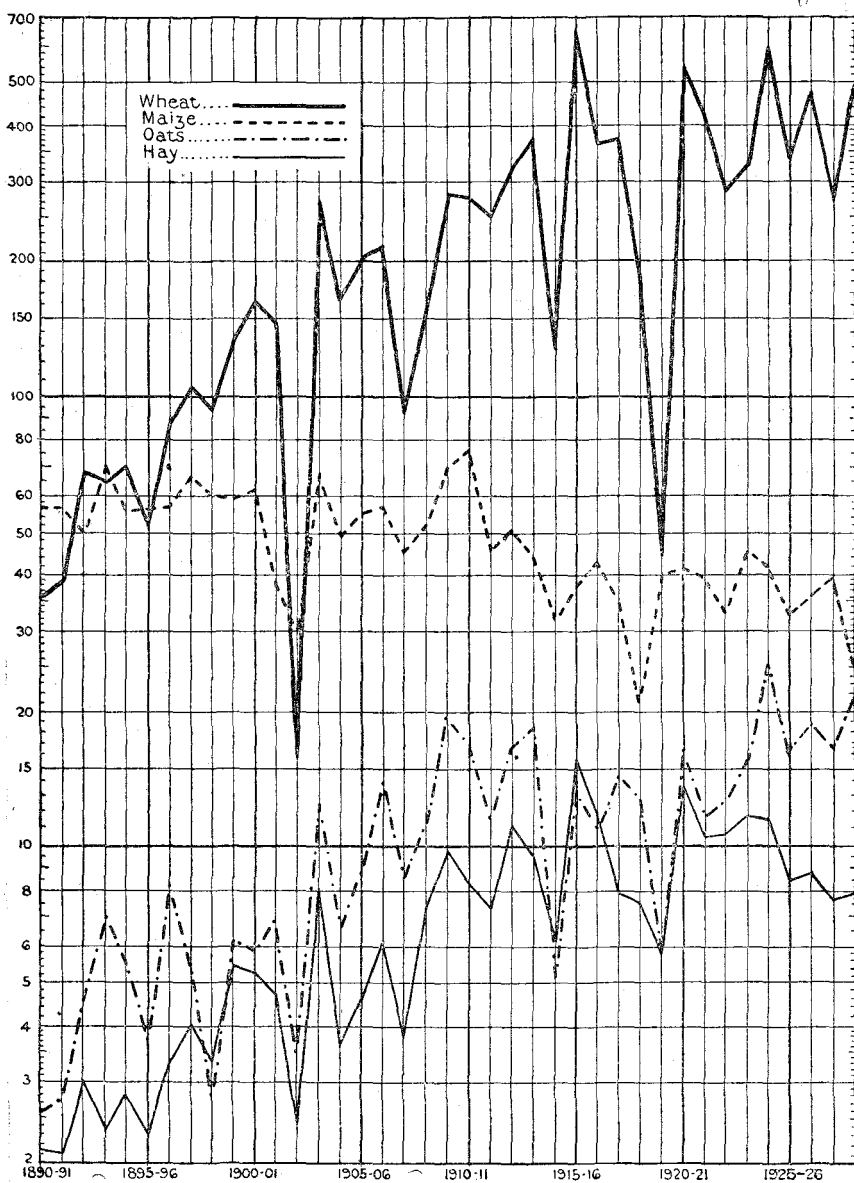


The numbers at the side of the graph represent 10,000 acres.

The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the percentage of increase or decrease. Actual areas are shown by means of the numbers on the side of the graph.

PRODUCTION OF PRINCIPAL CROPS, 1890-91 to 1923-24.

Ratio Graph.



The numbers at the side of the graph represent 100,000 bushels of wheat, maize, and oats, and 100,000 tons of hay.

The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the percentage of increase or decrease. Actual quantities are shown by means of the numbers at the side of the graph.

In addition to the area shown as cultivated there were 2,201,091 acres under sown grasses at 30th June, 1929; 25,742,149 acres of occupied Crown lands were ringbarked, partly cleared, and under native grasses; and 4,685,771 acres were ready for cultivation on alienated holdings, including 2,937,640 acres which had been cropped previously, 268,500 acres of new land cleared and prepared for ploughing, and 1,185,190 acres in full fallow and 294,041 acres of summer fallow.

Value of Agricultural Production.

The estimated value of the agricultural production of the State during the last five seasons and the proportionate value of each crop to the total value are shown in the following table, the values being based on prices realised on the farm:—

Crop.	Value.					Proportion per cent.				
	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
	£	£	£	£	£					
Wheat (grain) ..	16,684,950	8,589,380	10,696,780	6,197,220	9,851,400	58.0	41.4	48.4	36.4	49.4
Maize ..	631,230	805,820	1,004,710	622,330	543,150	2.2	3.9	4.6	3.7	2.7
Barley ..	28,590	23,070	20,050	14,350	13,200	0.1	0.1	0.1	0.1	0.1
Oats ..	293,000	338,720	339,880	324,010	254,860	1.0	1.3	1.5	1.9	1.3
Hay and Straw ..	6,712,800	5,915,940	5,194,070	4,896,530	4,139,400	23.3	23.5	23.5	28.8	20.8
Green Food ..	662,030	930,752	729,005	995,950	811,930	2.3	4.5	3.3	5.8	4.1
Potatoes ..	319,820	517,640	341,040	182,480	325,950	1.1	2.5	1.5	1.1	1.6
Sugar-cane ..	446,510	397,690	385,680	333,520	215,590	1.6	1.9	1.7	1.9	1.1
Grapes ..	193,670	199,170	322,700	171,890	320,080	0.7	1.0	1.5	1.1	1.6
Wine, Brandy, etc. ..	213,330	97,140	108,030	141,810	96,830	0.7	0.5	0.5	0.8	0.5
Fruit—Citrus ..	669,420	742,650	762,360	765,240	913,110	2.1	3.6	3.5	4.5	4.6
Other ..	850,200	915,714	913,780	1,021,520	923,660	2.9	4.4	4.1	6.0	4.7
Market-gardens ..	657,150	682,726	661,443	619,020	689,440	2.3	3.3	3.0	3.6	3.4
Other Crops ..	482,120	533,948	613,622	732,300	813,690	1.7	2.6	2.8	4.3	4.1
Total ..	23,784,820	20,740,960	22,098,100	17,918,170	19,923,350	100	100	100	100	100

No deduction has been made from the values shown above for cost of materials used in production. Seed wheat is included in the production of grain and the fodder used for farm stock is included at its market value. Exclusive of materials used in maintenance of buildings, fences, etc., and of depreciation of stock used for draught purposes, the cost of materials in 1928-29 was approximately £5,248,000. The principal items were: Fodder for stock, £2,030,000; seed, £1,101,000; depreciation of machinery, £1,085,000; fertilisers, £790,000; sprays, etc., £143,000; and water, £68,000. After deducting these the net value of production was £14,675,000.

The agricultural income of New South Wales at present depends mainly on the return from wheat crops, the value of wheat, grain and hay, in 1928-29 being £11,900,240, or nearly 60 per cent. of the total. Maize is next in importance, but the returns from other individual crops, except fruit, are comparatively small.

In 1924-25 the wheat crop was abundant and marketing conditions favourable, so that the aggregate value of the harvest was very high. In 1925-26 there was only an average wheat crop and prices declined slightly. The production of hay, maize and oats diminished also, but the prices of maize and oats improved. The yield of the principal crops increased in 1926-27, but, except for maize, prices were generally lower. In 1927-28 the wheat harvest was only two-thirds of the average of the previous five years, there was a marked decline in the return from hay and prices of agricultural produce showed another general decline. Although the decline in prices continued in 1929, the value of production increased in consequence of larger harvests except in the case of maize.

Value of Production per Acre.

The following table, showing the value of agricultural production, together with the average per acre, affords an interesting summary of the expansion of agricultural pursuits and a measure of the condition of the industry:—

Years ended June—	Average Annual Area Cultivated.	Average Annual Value of Production.	Average Value per Acre.
	acres.	£	£ s. d.
1887-91	858,367	4,030,611	4 13 11
1892-96	1,147,733	3,812,393	3 6 5
1897-1901	2,114,250	5,592,620	2 12 11
1902-06	2,515,268	6,302,903	2 10 1
1907-11	2,933,021	8,565,164	2 18 5
1912-16	4,507,748	12,867,474	2 17 1
1917-21	4,349,814	16,986,250	3 17 8
1922-26	4,680,110	22,328,630	4 15 5
1927	4,595,711	22,098,100	4 16 2
1928	4,994,515	17,018,170	3 8 2
1929	5,440,762	19,923,350	3 13 3

The comparatively high value of production per acre shown in the ten years prior to 1897 was due to the fact that agriculture was on a smaller scale; cultivation was more intense than it has been in recent years, and the yield per acre usually higher. The increased value shown since 1912-16 has been due mainly to a rise in prices received for produce concurrently with the general rise in prices, but the influence of this factor is affected by variations in the yield per acre.

The average value per acre of various crops is shown below:—

Crop.	Average Values per Acre.							
	Ten years ended 1913-14.	Ten years ended 1928-29.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Wheat for Grain...	1 17 1	3 4 5	4 14 0	2 18 9	3 3 10	2 0 11	2 8 2	
Maize for Grain ...	4 6 11	6 5 11	4 6 2	6 13 3	7 16 4	4 3 8	5 1 8	
Oats for Grain ...	2 4 9	2 16 8	2 7 5	3 15 11	3 4 8	2 16 4	2 0 3	
Hay ...	3 8 9	7 15 0	8 15 8	7 17 5	8 5 10	7 3 6	6 0 8	
Potatoes ...	11 2 5	15 10	8 13 13	4 22 15	5 15 10	8 9 1	21 19 7	
Sugar-cane†	21 9 4	45 2 10	57 10	8 45 15	6 38 1	7 38 19	7 31 15	
Vineyards†	16 12 4	33 10	6 37 3	1 25 4	10 34 11	4 24 2	9 31 17	
Orchards†	10 17 9	26 19	9 28 1	3 30 5	10 30 1	0 29 12	0 30 8	
Market-gardens ...	31 7 5	72 16	8 74 7	3 75 19	8 80 7	5 80 1	10 89 8	

† Productive area only.

The average value of production per acre measures the effect from year to year of yield obtained and prices realised, therefore it may be said to furnish an index of the combined effect of market and season on the average returns obtained by farmers from their holdings. To make the analysis a complete reflex of the condition of agriculture, modifying factors, such as the cost of production, drought, and other causes of loss, should be taken into consideration.

WHOLESALE PRICES OF AGRICULTURAL PRODUCE.

The prices realised for agricultural produce in New South Wales, when not regulated by any authority, vary with the seasons, or, as in the case of wheat, with world markets, and, therefore, show very great fluctuations. Wheat and flour, in which alone there is an external trade, were closely regulated in price between 1914 and 1922. The prices of flour, bran, and

pollard, are generally fixed in relation to the price of wheat by the Flour Mill Owners' Association of New South Wales. In the case of other produce, local production falls short of the requirements of the State, importation is usually necessary, and prices for these commodities are determined partly by external market conditions.

The quotations here given represent the average prices obtained for farm products (local and imported) in the various Sydney markets; for country districts due allowance must be made for cost of transportation, etc. The average for the year represents the mean of the prices ruling during each month, and does not take into account the quantity sold during the month. The prices ruling in each month, *i.e.*, the mean of the daily quotations, are shown in the "Statistical Register." The figures are those quoted by the middleman, and not those obtained by the producers:—

Commodity.	1921.	1925.	1926.	1927.	1928.	1929.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wheat bush.	0 8 8	0 6 2½	0 6 2	0 5 5	0 5 1½	0 4 10½
Flour ton	19 6 7	14 17 10½	14 17 5	13 0 2	12 7 2	11 19 11
Bran bush.	0 1 7½	0 1 4½	0 1 6	0 1 5	0 1 3½	0 1 5
Pollard "	0 1 8½	0 1 6½	0 1 10	0 1 6	0 1 5½	0 1 6
Oats "	0 3 5½	0 4 10½	0 5 6	0 4 8	0 4 5½	0 4 8
Maize "	0 5 3½	0 4 7½	0 6 5	0 6 0	0 3 11½	0 5 9
Potatoes (local) ton	6 0 2	11 5 7	12 18 3	8 1 0	5 13 10	16 13 6
Onions "	5 12 1	16 10 9	19 12 8	6 9 0	12 7 0	12 19 6½
Hay—						
Oaten ton	7 11 10	7 2 8	8 6 4	9 16 8	7 3 4	7 10 4
Lucerne "	5 18 5	7 11 3	8 9 1	8 0 3	5 17 0	6 17 0½
Chaff—						
Wheaten "	6 8 8	7 0 5	7 16 3	9 0 11	6 5 8	6 17 2

The combined price variations since 1901 of agricultural produce in Sydney markets, weighted according to the average consumption in New South Wales in the three years 1911-13, are shown below. The prices in 1911 have been adopted as base and called 1000.

Year.	Index Number.	Year.	Index Number.	Year.	Index Number.
1901	834	1911	1000	1921	1750*
1902	1266	1912	1339	1922	1638
1903	1181	1913	1069	1923	1720
1904	789	1914	1135	1924	1475
1905	972	1915	1648	1925	1680
1906	929	1916	1163	1926	1892
1907	1003	1917	1127	1927	1767
1908	1343	1918	1377	1928	1456
1909	1134	1919	1990	1929	1707
1910	1012	1920	2430	1930*	1581

* First six months.

In December, 1921, the index number reached 1,434—the lowest point touched since 1918. Subsequent turning points were December, 1922, when it had risen to 1,895; February, 1923, when it had fallen to 1,639; June, 1923, when it reached 1,860. In April, 1924, it had fallen to 1,393, followed by an improvement with some fluctuations to 2,064 in December, 1926. Then occurred a decline to 1,634 in June, 1927, a temporary rise to 2,004 in October, and a rapid decline in 1,360 in September, 1928, followed by a recovery to 1,968 in October, 1929, and a decline to 1,515 in March, 1930.

AGRICULTURAL MACHINERY.

For harvesting grain crops the reaper and binder, the stripper, and the harvester are used, and there is considerable difference of opinion regarding the relative efficiency of each of these implements. The reaper and binder

is employed almost exclusively in moist districts, but over the greater portion of the wheat areas conditions are favourable to the use of the harvester. A modern type of harvester, particularly adapted to Australian conditions, produced and developed locally, has contributed largely to the expansion of wheat cultivation, since it has enabled grain to be garnered with a considerable saving of time and labour.

In recent years the increasing use of farm tractors has produced further economy in rural labour. Information collected recently indicates that approximately 6,400 tractors were in use on farms in 1927-28.

The following statement shows the area cropped, the total value of the agricultural machinery used, and the value of the machinery used per acre, in divisions of the State in the year 1928-29:—

Division.	Area under Crop, 1928-29.	Value of Agricultural Machinery and Implements.		Average value per Acre of Machinery used 1928-29.
		1917-18.	1928-29.	
	acres.	£	£	£ s. d.
Coastal	273,582	654,733	1,116,960	4 1 8
Tableland	467,090	714,649	1,379,993	2 19 1
Western Slopes	2,658,424	2,227,934	4,962,136	1 17 4
Central Plains and Riverina.	2,027,390	1,968,935	3,532,975	1 14 10
Western	14,276	49,744	53,487	3 14 11
Total	5,440,762	5,615,995	11,045,551	2 0 7

In the coastal and tableland districts the areas under cultivation are small, including many small holdings highly developed for fruit-growing, dairy-ing and market gardening, while on the slopes and plains the implements used serve large wheat farms. In the Western Division are a number of small irrigation settlements, but the area farmed there is too small to give an average which might be considered satisfactory for purposes of comparison.

Increased use of agricultural machinery has been a feature in the development of agriculture in New South Wales during the past twenty years. This matter is further discussed under the next heading.

PERSONS ENGAGED IN AGRICULTURE.

The following table provides an interesting comparison of the number of persons returned by land-holders as being constantly engaged on rural holdings with agriculture as their principal activity. The particulars include working proprietors, unremunerated members of the family working on the holding, and permanent employees.

Year.	Persons Per- manently En- gaged.*	Area under Crop.	Value of Machinery Used.*	Year.	Persons Per- manently En- gaged.*	Area under Crop.	Value of Machinery Used.*
	No.	acres.	£		No.	acres.	£
1912-13	59,840	3,737,269	4,633,800	1921-22	47,268	4,445,848	7,884,713
1913-14	59,813	4,568,841	5,029,938	1922-23	48,154	4,694,088	8,536,164
1914-15	58,020	4,808,627	5,159,959	1923-24	46,823	4,808,046	8,799,353
1915-16	56,904	5,794,835	5,362,067	1924-25	46,278	4,911,148	9,427,730
1916-17	52,758	5,163,030	5,449,657	1925-26	43,365	4,541,423	9,588,318
1917-18	48,384	4,460,701	5,615,995	1926-27	41,650	4,595,711	9,837,193
1918-19	43,823	3,890,844	5,696,916	1927-28	42,293	4,994,515	10,849,513
1919-20	47,392	3,770,155	6,128,753	1928-29	38,275	5,440,762	11,045,551
1920-21	48,896	4,464,342	7,120,381				

* Principally in cultivating the soil.

The decline in the number of persons engaged in agriculture during the first seven years shown above was probably due mainly to enlistments for military service, although the adverse conditions ruling in the industry exercised a depressing influence. This latter cause doubtless operated to a marked extent during the severe drought which prevailed between 1918 and June, 1920. The number increased as a result of the demobilisation of large numbers of the expeditionary forces after the cessation of hostilities, although in 1919-20 there was an almost complete failure of the wheat crops of the State, and agricultural operations were considerably restricted.

Subsequently another decline occurred and the number of persons engaged permanently in agriculture is now about 36 per cent. less than in the years immediately preceding the war although the area under crop is greater. The explanation apparently lies in the more extensive use of tractors and in the improvements in agricultural machinery by which the capacity of the ploughs, harvesters, reapers and binders and other plant has been increased in such a way that less man power is required to cultivate the greater area of land devoted to agriculture. Moreover, the speedier means of transport by reason of the substitution of motor vehicles for the horse-drawn and the extension of railway facilities have enabled the farmers to effect a considerable saving in labour.

Data as to the number of casual and itinerant workers are not obtainable and it is impossible to say to what extent, if at all, the decrease in the number of persons permanently engaged in cultivating the soil is offset by an increase in number of casual employees. Reference to data as to wages paid to casual employees, however, shows that the proportion of rural work performed by casual employees is relatively small and, although there has been a steady increase in the earnings of casual employees in rural industries, it does not indicate any large degree of substitution of casual for permanent labour.

Particulars of the classes and total wages of persons engaged in rural industries are shown in the chapter "Rural Industries" of this Year Book, and in the section "Rural Industries" of the Statistical Register of New South Wales. Reference to the number of persons recorded at the Census of 1921 as being engaged in agriculture was published on page 566 of the Year Book for 1928-29.

FERTILISERS.

In New South Wales superphosphate is the only artificial fertiliser used extensively, the soils in the wheat areas being generally deficient in phosphoric acid. Tests of manure conducted on the farmers' experiment plots indicate that benefits derived from the application of superphosphate to wheat-lands, as a general rule, are most marked in the southern portion of the wheat-belt, viz., the South-western Slopes and the Riverina. The beneficial results gradually diminish throughout the western districts which form the central portion of the wheat-belt, and in the north-western districts no advantage is gained by the use of this fertiliser. The results may be affected, however, by the fact that in the south fallowing is more common than in the west, and much more common than in the north.

The average quantity of superphosphate used on lands fertilised with this manure only in 1928-29 was 66 lb. The number of farms on which superphosphate was used in 1928-29 was 16,973.

The following table shows the area of land and the quantity of manure used on crops during the year 1928-29—

Division.	Area under Crop.	Total Area of Crops Manured.	Manures Used.			
			Natural (only).	Natural and Artificial, in Combination.		Artificial (only).
				Natural.	Artificial.	
	acres.	acres.	loads.	loads.	cwt.	cwt.
Coastal	273,582	73,268	71,541	67,699	115,604	182,805
Tableland	467,090	176,042	8,993	2,275	887	126,413
Western Slopes	2,658,424	1,754,728	2,726	409	502	989,362
Central Plains	411,622	255,691	1,240	...	...	115,333
Riverina	1,615,768	1,496,627	2,152	126	45	921,026
Western	14,276	4,762	356	169	111	5,349
Whole State	5,440,762	3,761,118	87,008	70,678	117,149	2,340,788

The greater part of the natural manures is used in the metropolitan division. The total area treated with natural manures was relatively small, being only 18,338 acres, inclusive of the area on which both natural and artificial manures were used.

The quantities of the principal kinds of artificial fertilisers used in 1928-29 were 2,191,652 cwt. of superphosphate and 91,460 cwt. of bone-dust, in manuring 3,709,821 acres and 20,579 acres respectively. In addition, small quantities of artificial fertilisers were used in conjunction with natural manures.

The application of manures to agricultural lands is practised most extensively in the southern districts, and on the Central Plains, where nearly all the crops are manured. In the Central Western Slopes and Tableland about half the cultivated lands were manured, but in the northern districts only small areas were treated.

In the past eight years the practice of fertilising has extended, there being an increase of over 1,760,000 acres, or 88 per cent. in the area manured, and of 1,459,000 cwt. or 146 per cent. in the amount of artificial fertilisers used annually.

The following table shows the total area cultivated, the total area manured, and the nature of the manures employed, in various years:—

Season.	Total Area under Crop.	Total Area of Crops Manured.	Manures Used—	
			Natural.	Artificial.
	acres.	acres.	loads.	cwt.
1907-08	2,570,137	423,678	144,021	276,120
1913-14	4,568,841	2,226,742	166,753	1,010,596
1915-16	5,794,835	2,753,431	177,788	1,132,446
1920-21	4,464,342	1,998,429	160,361	998,191
1921-22	4,445,848	2,104,329	176,327	1,053,710
1922-23	4,694,088	2,404,066	181,656	1,243,129
1923-24	4,811,891	2,313,602	196,697	1,327,771
1924-25	4,914,485	2,627,308	181,007	1,539,712
1925-26	4,541,423	2,635,483	268,930	1,709,557
1926-27	4,595,711	2,863,771	197,898	1,863,088
1927-28	4,994,515	3,398,795	168,912	2,240,337
1928-29	5,440,762	3,761,118	157,686	2,457,937

The quantity of superphosphate used on the areas sown with wheat in 1929-30 was 1,920,463 cwt. Particulars of the area manured are not available.

The figures in the table do not indicate the exact ratio between the area under crop in any season and the area manured to produce that season's harvests. For some crops the soil is prepared, and the crop is harvested during the period from 1st July to 30th June, which is taken as the season in compiling agricultural statistics. But for other products, e.g., wheat the most extensive crop—the land under crop in any season was manured between January and June of the preceding period. Nevertheless the table supplies convincing evidence that the practice of manuring the soil is increasing steadily.

Extensive manurial trials are made regularly by the Department of Agriculture with the view of encouraging the adoption of better methods, and of demonstrating to farmers that largely-increased yields result from scientific cultivation. It is in this that much hope rests for the ultimate improvement of the low average wheat yield obtained at present.

In 1928-29 information was collected regarding the use of manures for pastures, and it was reported that a total area of 87,686 acres was treated on 689 holdings, the quantity of artificial manures used being 80,979 cwt.

The sale of artificial manures is regulated by the Fertilisers Act of 1904, and under its provisions the vendor is required to furnish to the purchaser a statement as to their nature and chemical composition. Further legislation has been proposed for the adequate protection of farmers.

SHARE-FARMING.

The system of working the land known as share-farming has played an important part in the development of agriculture in New South Wales. It was introduced towards the end of the last century, and helped to overcome the difficulties which had retarded the extension of cultivation. Land-holders could not obtain workmen to till large areas of their land, while new settlers were impeded for lack of cleared land, and of the necessary farming facilities.

The principles of the system are as follow:—The owner provides suitable land and sometimes seed and fertiliser, and the farmer generally provides the necessary plant and labour. The contract usually is that the land be operated for a specified purpose and a fixed time. Various arrangements are made for sharing the product. Sometimes the parties to the agreement take equal shares of the produce up to a specified yield, and any excess goes to the farmer as a bonus. In other cases the owner takes one-third and the farmer two-thirds of the total product.

The following table shows particulars regarding the areas used for cultivation or dairying on shares during the past nine years:—

Season.	Holdings used for Share Farming.	Share- farmers.	Area Farmed on Shares.		
			Cultivation.	Dairying.	Total.
	No.	No.	acres.	acres.	acres.
1920-21	1,668	2,761	614,351	121,976	736,327
1921-22	2,246	3,449	677,197	183,878	861,075
1922-23	2,457	3,970	718,488	237,069	955,557
1923-24	2,374	3,636	673,593	226,804	900,397
1924-25	2,510	3,828	695,092	234,736	929,828
1925-26	2,493	3,667	645,395	226,362	871,757
1926-27	2,919	4,043	706,025	274,030	980,055
1927-28	3,227	4,457	845,397	303,274	1,148,671
1928-29	3,281	4,402	840,972	343,942	1,184,914

Of the 3,281 holdings used wholly or in part for share-farming in 1928-29, share-farming was in operation for agriculture only on 2,301 holdings, dairying only on 273 holdings, and agriculture and dairying combined on 707 holdings, including dairy farms on which only fodder crops for the dairy cattle were grown.

Practically the whole of the area cultivated on the share-system is devoted to wheat-growing. The system reached its maximum development in 1915-16, when the area cultivated under it exceeded one-fifth of the total area under crop in the State. Up to 1919-20 the returns from wheat-growing were bad on account of droughts and market difficulties, and share-farming diminished more rapidly than other systems of cultivation. The subsequent experience has been determined largely by seasonal conditions.

Of the areas cultivated in 1928-29 on the share system, 458,165 acres were in the Western Slopes Division and 245,528 acres were in the Riverina.

THE DEPARTMENT OF AGRICULTURE.

The development and activities of the Department of Agriculture were described on pages 569 and 570 of the Year Book for 1928-29. Further particulars are contained in the Annual Reports of the Department.

The principal heads of revenue receipts and expenditure, exclusive of capital expenditure, of the Department of Agriculture during the year ended 30th June, 1929, were as follow:—

<i>Net Receipts.</i>	£	<i>Expenditure.*</i>	£
Agricultural College, Experiment Farms, etc.	69,438	Agricultural College, Experiment Farms, etc.	144,007
Fees for Fumigation, Registration—Plant Diseases Act	18,356	Grain Elevators	69,211
Herd-testing Fees, etc.	13,900	Administrative	189,536
Rents, etc.	3,353	Stock and Brands, Pastures Protection	170,629
Stock Branch	10,496	Botanic Gardens, Parks, etc.	54,899
Grain Elevator Fees	150,979		
Total	£266,522	Total	*£628,282

* Including expenditure incurred by other departments on behalf of the Department of Agriculture.

The loan expenditure for the year amounted to £158,271, including £124,136 in connection with the bulk-handling of wheat.

Interest on loan money expended on grain elevators and other undertakings of the Department of Agriculture is excluded from the foregoing statement. The grain elevators' accounts are summarised on a later page.

Agricultural Bureau.

An account of the activities of this organisation was published on page 570 of the Year Book for 1928-29. The Annual Reports of the Department of Agriculture contain further particulars.

AGRICULTURAL EDUCATION AND EXPERIMENTS.

A general account of the system of agricultural education and of the activities of the experiment farms was published in the Year Book for 1928-29 at pages 571 and 572. Further particulars are contained in the Annual Reports of the Departments of Agriculture and Education.

DATES OF PLANTING AND HARVESTING.

The average dates of planting and harvesting the principal crops of the State in the main districts in which they are sown are as follow:—

Crop.	Most Usual Months of—	
	Planting.	Harvesting.
Wheat	May-June	November-December.
Maize	September-December ...	January-August.
Oats	May	December.
Barley	May	December.
Potatoes—early ...	July-August	November-December.
„ late	November	July.
Sugar-cane	September	July-December.
Tobacco	November-December ...	March-April.
Broom Millet	September-October ...	January-February.

It should be noted that the foregoing statement shows only the most usual dates and that both planting and harvesting occur before and after the periods specified, divergences being due to the variety of seed planted, the geographical position of the district, and variations in seasonal conditions.

INDIVIDUAL CROPS.

WHEAT.

Wheat is the staple agricultural product of New South Wales, and its cultivation provides a means of livelihood for a large section of the population. It is the principal activity on probably one-eighth of the rural holdings of the State, and three-quarters of the average area under crop are devoted to wheat. The farm value of wheat-crops (other than those used as green fodder) in 1928-29 was £11,900,240, including £9,851,400 from grain and £2,048,840 from wheaten hay.

The mild climate of New South Wales makes it possible to work the soil on scientific lines throughout the year, and admits of the utilisation of paddocks for pastoral purposes after the crop has been harvested. The time of sowing varies according to district and seasonal conditions, but is seldom earlier than March or later than August. Harvesting generally begins in November and may extend until February.

The Wheat Belt.

A description of the nature and extent of the wheat belt of New South Wales was published on pages 573 and 574 of the Year Book for 1928-29.

The extension of the limits of wheat-growing in New South Wales formed the subject of special reports by the Government Statistician in 1905, 1913, and 1923.

Development of Wheat Growing.

Wheat growing as an industry in New South Wales has progressed steadily during a period of thirty years, but at present less than one-sixth of the area suitable for wheat is cultivated each year.

The following statement shows the area under wheat for grain and for hay, together with the total production, average yield per acre, and quantity exported since 1897-98, when a surplus of wheat for export was first produced :—

Season.	Area under Wheat.				Yield.		Average yield per acre.		Wheat and Flour exported overseas since Year following harvest.
	For Grain.	For Hay.	Fed-off. ‡	Total.	Grain.	Hay.	Grain.	Hay.	
	acres.	acres.	acres.	acres.	thousand bushels.	thousand tons.	bushels.	tons.	thousand bushels.*
1897-98	993,350	213,720	++	1,207,070	10,560	182	10.6	.85	531
1898-99	1,319,503	312,451	++	1,631,954	9,276	177	7.0	.57	437
1899-00	1,426,166	414,813	++	1,840,979	13,604	341	9.5	.82	865
1900-01	1,530,609	332,143	++	1,862,752	16,174	348	10.6	1.05	4,788
1901-02	1,392,070	312,358	++	1,704,428	14,800	287	10.6	.92	2,914
1902-03	1,279,760	320,588	++	1,600,348	1,585	76	1.2	.24	154
1903-04	1,561,111	286,702	++	1,847,813	27,334	452	17.5	1.58	9,772
1904-05	1,775,955	284,367	++	2,060,322	16,464	207	9.3	.73	5,661
1905-06	1,939,447	313,582	++	2,253,029	20,737	305	10.7	.97	5,338
1906-07	1,866,253	316,945	16,744	2,199,942	21,818	403	11.7	1.27	6,246
1907-08	1,890,171	366,925	129,813	1,885,909	9,156	198	6.6	.54	962
1908-09	1,894,056	490,828	104,202	1,989,086	15,483	427	11.1	.87	4,866
1909-10	1,990,180	380,784	6,825	2,376,789	28,532	566	14.3	1.49	12,111
1910-11	2,128,826	422,972	61,458	2,613,256	27,914	468	13.1	1.11	14,423
1911-12	2,380,710	440,243	80,731	2,901,684	25,088	423	10.5	.96	10,172
1912-13	2,231,514	704,221	31,557	2,967,292	32,487	780	14.6	1.11	17,116
1913-14	3,205,397	534,222	23,393	3,763,016	38,020	588	21.9	1.10	20,083
1914-15	2,758,024	569,431	815,561	4,143,016	12,831	355	4.7	.62	785
1915-16	4,188,865	879,678	53,702	5,122,245	66,765	1,212	15.9	1.38	23,514
1916-17	3,806,604	693,605	54,101	4,498,310	36,598	814	9.6	1.28	21,262
1917-18	3,329,371	435,180	69,855	3,828,436	37,712	485	11.3	1.11	12,650
1918-19	2,408,669	613,544	204,161	3,227,374	18,325	517	7.6	.84	19,694
1919-20	1,474,174	716,770	877,596	3,068,540	4,388	355	3.9	.49	427
1920-21	3,127,377	520,555	15,420	3,663,352	55,625	822	17.8	1.58	41,746
1921-22	3,104,949	467,363	24,725	3,687,047	42,767	575	13.4	1.23	21,793
1922-23	2,942,857	508,184	350,968	3,892,009	28,658	649	9.7	1.09	8,904
1923-24	2,945,335	693,622	283,305	3,924,262	33,176	703	11.2	1.61	11,976
1924-25	3,550,078	388,479	21,647	3,960,204	59,767	587	16.8	1.38	38,741
1925-26	2,925,012	449,803	286,352	3,661,367	33,806	444	11.6	.99	16,951
1926-27	3,352,736	811,213	36,160	3,700,109	47,541	394	14.2	1.27	18,697
1927-28	3,029,950	369,960	622,385	4,022,295	27,042	343	8.9	.93	15,516
1928-29	4,090,083	375,270	19,065	4,484,958	49,257	390	12.0	1.04	21,023
1929-30 ‡	3,902,200	375,100	57,700	4,335,000	33,948	306	8.7	0.81	14,621

* Flour has been expressed at its equivalent in wheat.

‡ Includes area sown for green food.

‡ Subject to revision.

From this record of thirty-three years' experience it will be observed that poor wheat yields have been obtained at intervals of more or less regular recurrence, viz., in the years 1898-9, 1902-3, 1907-8, 1914-15, 1918-19 and 1919-20. The remarkable recuperative powers of the wheat lands in favourable seasons were demonstrated in the years 1903-4 and 1920-21, when, following severe droughts, exceptionally high yields were obtained.

The fluctuations in the development of wheat-growing since 1915 were discussed on pages 575 and 576 of the Year Book for 1928-29. Unfavourable rainfall during the ploughing and sowing periods apparently caused a temporary decline in the area sown in 1925-26 and 1926-27, although the low price of wheat probably influenced the position in the latter year. Very favourable rainfall almost throughout the wheat belt in the months of February, March, and April in both 1928 and 1929 probably encouraged farmers to increase the areas sown in each of those seasons despite the prevalence of low prices. In 1930 the Federal Government encouraged farmers to grow more wheat and despite the fact that in many districts the early rainfall was deficient preliminary returns indicate that over 5,500,000 acres have been sown with wheat in the 1930-31 season.

Wheat Districts.

The statistical divisions of New South Wales are shown on the map on the frontispiece of this Year Book.

The principal wheat-producing divisions of the State, arranged in order of importance, are the Riverina, the south-western slopes, the central-western slopes, the north-western slopes, the central plain, and the central tablelands.

The average area harvested and the average yield of grain in each division for the period of eight years 1922-23 to 1929-30 are shown in the following summary:—

District.	Northern.		Central.		Southern.		Total.	
	acres.	bus.	acres.	bus.	acres.	bus.	acres.	bus.
Coastal ...	*	*	*	*	*	*	1,696	16,045
Tableland ...	9,328	122,071	172,661	2,215,910	4,355	64,844	186,265	2,402,803
Slopes ...	282,918	3,364,044	767,306	7,561,710	890,988	11,708,174	1,941,212	22,633,929
Plains ...	81,329	844,122	155,659	1,225,747	973,545	12,019,438	1,210,532	14,089,305
Western Division	*	*	*	*	*	*	20,591	68,042
Total ...	378,575	4,330,237	1,095,626	11,003,367	1,868,888	23,792,456	3,360,296	39,210,124

* Comparable divisions not available.

In the 1922-23 season a redistribution of statistical divisions was made on the basis of local government areas, and, as this necessitated considerable alterations in the divisions previously adopted, accurate comparison between the various divisions on a topographical basis can only be made subsequent to that date.

However, as the changes are comparatively slight as regards the grouping of northern, central, and southern divisions, a comparison may be made on this basis. This comparison has the merit of dividing the wheat belt into three portions, of which the northern normally receives the greater part of its rainfall in the summer, and the southern in the winter, while the rainfall of the central districts is non-seasonal in character, since it is subject in some degree to the two separate meteorological influences which determine the season of the rainfall in the other regions.

Differences of soil, geographical features, cultural methods, and other factors also play a considerable part in determining the yields of the various divisions, but the following statement shows that wheat is most extensively and successfully grown in the southern districts, while the central divisions are superior to those of the north. The coastal districts and western division, where comparatively little wheat is grown, are included to complete the total of the State.

Divisions.	Area Harvested for Grain.		Yield of Grain.		Yield of Grain per Acre.					
	Average, 1919-20 to 1928-29.	1929-30.	Average, 1919-20 to 1928-29.	1929-30.	Average 1919-20 to 1928-29.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
Coastal	acres. 2,020	acres. 1,340	bus. 20,400	bus. 20,700	bus. 10.1	bus. 1.6	bus. 15.6	bus. 7.1	bus. 11.2	bus. 15.4
†Northern	337,472	447,188	3,978,600	6,729,600	11.8	7.0	14.4	4.2	14.3	15.0
†Central	1,022,505	1,230,713	11,676,500	6,714,000	11.4	11.7	13.3	7.0	11.4	5.5
†Southern	1,699,667	2,214,815	22,520,500	20,475,300	13.2	12.2	14.6	10.6	11.9	9.2
Western	1,591	7,722	7,700	8,400	4.8	3.9	8.7	1.5	4.8	1.1
Total...	3,063,255	3,901,778	38,203,700	33,948,000	12.5	11.6	14.2	8.9	12.0	8.7

* 1929-30 figures are subject to revision.

† Includes Tablelands, Slopes, and Central Plains.

Generally speaking, the use of fertilisers and the practice of fallowing are most extensive in the southern districts, and there the average yield is usually greatest. This is due in a large part to the more dependable nature of the winter rains. In the 1928-29 and 1929-30 seasons, however, the northern areas yielded a much higher average than any other division because of the occurrence of favourable rains during the growing period in the northern wheat belt and of comparatively dry weather conditions in the southern and central districts.

Average Yield of Wheat.

Viewed over a long period of years, the average yield of wheat in New South Wales is subject to marked fluctuations by reason of the widely divergent nature of the seasons, but reference to the table on page — will show that these fluctuations have been much less marked since 1920-21 than formerly. The highest yields have usually been recorded in seasons following the worst droughts, and besides giving dramatic proof of the advantages of fallowing have gone far to make immediate compensation for the losses sustained. The lowest yield on record—that of the 1902 season—was only 1.2 bushels per acre. It was followed by a yield of 17.5 bushels per acre; which was surpassed only in 1920-21, when, after the severe drought of 1918-20, a record average of 17.8 bushels per acre was obtained.

The average annual yield has shown definite improvement since the commencement of wheat-growing for export in 1897. The fact that the average is still considerably below that which was obtained prior to this expansion is due probably to the fact that only some of the best wheat lands were tilled prior to the increase in the area sown. In decennial periods the average yields of New South Wales have compared as follows with the average for the nine seasons ended 30th June, 1930:—

Period.	Average Yield per acre.	Period.	Average Yield per acre.
	bushels.		bushels.
1872-1881	14.71	1902-1911	11.04
1882-1891	13.30	1912-1921	11.62
1892-1901	10.02	1922-1929	11.89

In calculating these averages the area which was sown for grain but failed is included, while the area fed off or used for green fodder is excluded. Since the year 1928-29 areas with a fed-off value of less than 15s. per acre have been included as failed areas.

The yield of wheat in New South Wales does not compare favourably with the yields usually obtained abroad in some of the large wheat-producing countries. Smaller producing countries, particularly those situated in the colder climates, show far greater average yields. Representative averages for the five years 1924-1928 are shown below:—

Country.	Average Yield per acre.	Country.	Average Yield per acre.
	bushels.		bushels.
Great Britain ...	31.9	Argentina ...	12.5
New Zealand...	32.6	Australia ...	12.5
Canada ...	18.6	New South Wales ...	12.7
United States ..	15.0	Russia (Soviet) ..	11.0

Although the yield in New South Wales is largely influenced by the nature of the seasons, it is apparent that, as scientific methods of cultivation

are becoming more widely adopted and land is properly fallowed, tilled, and manured, the average yield per acre is increasing. Another favourable factor exists in the improvement of wheat types by plant-breeding. However, it is anticipated that the warm climate and the prevalence of hot winds during the ripening period will always militate against a high average yield being obtained in New South Wales, such as is obtained in more humid countries.

Fallowing and the Wheat Yield.

Since 1923-24 statistics have been collected of the yield of grain from the areas of new land, fallowed land, and unfallowed land sown with wheat. It was intended that land should not be classed as fallow unless it had not been cropped for at least twelve months, but it is doubtful whether the collection has been made on this basis in all cases. Summer fallow is practised to some extent.

The following table provides a comparison of the yields obtained from the various classes of land in 1929-30 in each of the divisions described on page 547:—

Division.	Area.†			Total Yield.			Average Yield per Acre.		
	New Land.	Fallowed Land.	Stubble Land.	New Land.	Fallowed Land.	Stubble Land.	New Land.	Fallowed Land.	Stubble Land.
	acres.	acres.	acres.	bushels.	bushels.	bushels.	bush.	bush.	bushels.
Coastal ...	107	127	1,106	2,217	1,873	16,530	†	†	15·0
Northern*	11,712	17,730	417,726	116,145	340,032	6,273,249	9·9	19·2	13·0
Central*	58,513	409,765	762,435	272,478	3,251,355	2,189,804	4·7	7·0	4·2
Southern*	117,316	1,210,191	887,308	581,340	14,157,465	5,735,715	5·0	11·7	6·5
Western	3,667	850	3,805	249	3,606	4,605	0·1	†	1·2
Total ...	190,715	1,638,683	2,072,380	972,429	17,754,396	15,219,903	5·1	10·8	7·3

*Includes Tablelands, Slopes, and Central Plains. † Average is not of value on account of smallness of operations. ‡ Including areas which failed.

The average yields on fallowed land were far in excess of those from other land throughout the wheat belt. There are, however, other factors such as rainfall, cultural methods, and soil, which necessarily play an important part in determining the results. The climatic conditions prevailing in the various wheat districts and the methods adopted by farmers differ in a marked degree, consequently the results shown above do not represent fully the benefits which accrue from fallowing. Still, it is apparent that even with present methods of fallow the improvement in the wheat yield has been appreciable.

The average yields per acre from fallowed and unfallowed lands respectively in the northern, central, and southern districts of the State in each year for which records have been obtained are as follows:—

Year.	Northern Districts.*		Central Districts.*		Southern Districts.*		Whole State.	
	Fallowed.	Stubble.	Fallowed.	Stubble.	Fallowed.	Stubble.	Fallowed.	Stubble.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
1923-24 ...	8·3	6·8	10·4	8·5	15·3	12·2	14·1	9·6
1924-25 ...	19·4	16·1	19·1	14·7	19·9	13·9	19·7	14·8
1925-26 ...	9·3	7·5	15·3	10·7	13·2	10·1	13·5	10·0
1926-27 ...	16·1	14·3	16·4	12·7	15·2	12·3	16·0	13·0
1927-28 ...	5·8	3·6	9·0	5·7	11·7	7·5	11·2	5·9
1928-29 ...	16·7	14·3	14·5	9·7	13·7	9·2	13·9	10·6
1929-30 ...	19·2	15·0	7·9	4·2	11·7	6·5	10·8	7·3

* Includes Tablelands, Slopes, and Plains.

The following statement shows approximately the areas of new land, fallowed land, and stubble land, sown with wheat harvested for grain, including that which failed entirely in New South Wales during each of the past six seasons:—

Season.	New Land.	Fallowed Land.	Remainder Stubble Land.	Total.*
	acres.	acres.	acres.	acres.
1924-25	149,894	1,583,047	1,780,069	3,513,010
1925-26	81,243	1,464,686	1,307,334	2,853,263
1926-27	123,730	1,746,822	1,465,903	3,336,455
1927-28	115,971	1,771,208	1,119,586	3,006,765
1928-29	192,865	2,010,751	1,872,938	4,076,554
1929-30	190,715	1,638,683	2,072,380	3,901,778

* Approximate.

On the average about half the total area cropped for grain is fallowed land.

Size of the Wheat Farms.

If it be considered that, in normal seasons, an area of less than 250 acres devoted to wheat will not provide subsistence for a farmer and his family, it is apparent, in view of the small average area devoted to wheat, that wheat-growing in many cases must be conducted in conjunction with other pursuits, and that many wheat-growers derive portion of their living from other sources.

The following table illustrates the recent development of wheat-growing in respect of number and average size of areas sown:—

Year.	Wheat sown for Grain, Hay, and Green Food.			Holdings on which wheat was sown for hay or for green food only, or on which area sown failed entirely.§	Wheat sown for Grain.		
	Holdings.	Total Area sown with Wheat.	Average Area per Holding devoted to Wheat.		No. of Holdings.	Areas sown for grain.†	Average area per holding.†
	No.	acres.	acres.	No.	No.	acres.	acres.
1900-01	20,149	1,862,752	92	*	*	*	*
1905-06	19,049	2,253,029	118	*	*	*	*
1915-16	22,453	5,122,245	224	*	*	*	*
1920-21	17,790	3,663,352	206	2,132	15,658	3,127,377	200
1921-22	18,216	3,687,047	202	1,921	16,295	3,194,949	196
1922-23	18,632	3,892,009	209	3,727	14,905	2,942,847	197
1923-24	18,036	3,924,262	217	3,441	14,595	2,945,335	202
1924-25	17,690	3,960,204	224	1,623	16,067	3,550,078	221
1925-26	17,074	3,661,367	214	2,797	14,277	2,925,012	205
1926-27	17,135	3,700,109	216	1,204	15,931	3,352,736	210
1927-28	16,817	4,022,295	239	2,710	14,107	3,029,950	215
1928-29	17,134	4,484,958	262	1,128§	16,006	4,090,083	256

* Not available.

† Excluding area cropped for hay.

§ In 1928-29 areas with a fed-off value less than 15s. per acre were classified as failed entirely.

Consideration of the above table in conjunction with statistics of average yield suggests that there is a considerable number of growers who sow wheat and crop it for grain, hay or green food, according to seasonal conditions.

The following table provides a summary of the areas of holdings on which wheat was grown for grain in the season 1928-29, arranged in groups according to the area cropped for grain. The average yield per acre in each group in preceding years is shown for comparison:—

Area cropped for Grain.	Holdings.	Wheat-grain.							
		Area cropped for grain.	Production of grain.	Average Yield per acre.					
				1928-29.	1927-28.	1926-27.	1925-26.	1924-25.	1923-24.
acres.	No.	acres.	bushels.	bus.	bus.	bus.	bus.	bus.	bus.
1-49	2,028	46,865	570,483	12·2	10·0	12·0	10·3	16·4	11·3
50-299	8,859	1,481,341	19,630,389	13·3	9·7	14·0	11·3	17·2	11·6
300-999	4,890	2,246,595	25,855,941	11·5	8·1	14·5	11·9	16·6	11·0
1,000-1,999	212	262,771	2,683,248	10·2	8·8	13·8	11·7	16·8	11·3
2,000-and over.	17	52,511	516,939	9·8	12·2	13·6	12·3	14·7	10·7
Total	16,006	4,090,083	49,257,000	12·0	8·9	14·2	11·6	16·8	11·3

In this table wheat-farms are divided somewhat arbitrarily into five classes, graded according to the size of the area cultivated for grain. Those where less than 50 acres are cultivated for grain may be considered to be held by growers earning their livelihood principally in other directions. In 1928-29 these numbered 2,028, or 12·7 per cent. of the total. Where the areas cultivated range from 50 acres to 299 acres growers may be considered to draw their subsistence from wheat-growing in a degree ranging from partial to complete dependence—those numbered 8,859, or 55·3 per cent. of the total. Where the area cultivated exceeds 300 acres it may be considered generally that hired labour is employed in connection with the whole of the operations, or that more than one grower is involved. Areas of this kind numbered 5,119, and represented 32·0 per cent. of the total.

In all, areas of less than 30 acres in extent were sown with wheat for grain on 1,260 farms. The total number of areas under 100 acres in extent sown with wheat for grain was 3,646; from 100 to 199 acres, 3,793; from 200 to 299 acres, 3,448; from 300 to 399 acres, 2,043; and from 400 to 499 acres, 1,203; the number in successive groups of 100 diminished rapidly thereafter. In 1928-29 there were 17 wheat crops exceeding 2,000 acres in extent. A number of large crops, however, are farmed on the shares system, and in some cases more than one share-farmer is engaged.

The disparities between the average yields in area series are not always very pronounced. The most productive groups of areas in the various years were as follow:—In 1927-28 and in 1925-26, areas over 2,000 acres in extent; in 1926-27, areas from 300 to 999 acres in extent; 1928-29, 1924-25 and 1923-24, areas from 50 to 299 acres; 1922-23, areas under 50 acres.

A table showing the number, area and production from wheat crops in area series in each division of the State is published in the section "Agriculture" of the Statistical Register of New South Wales. This shows that the 17 crops exceeding 2,000 acres in extent were distributed divisionally as follows:—In Riverina 9, South-western Slopes 3, Central Plain 2, North-western Slopes 1, Central-western Slopes 1, North-central Plain, 1.

Consumption of Wheat in New South Wales.

Reference has been made in previous issues of the Year Book to the difficulty of making estimates of the consumption of wheat in New South Wales between the years 1910 and 1920, and it has been explained that the estimates for these years are approximate.

However, steps have been taken to obtain data of the interstate movements of wheat and flour since 1920, and as particulars of stocks are

obtained at the end of each season it is now possible to estimate with a greater degree of accuracy the amount of wheat consumed in New South Wales.

In order to preserve as far as possible the line of demarcation between seasons, the consumption and export years have been made to coincide with calendar years. But for the last period shown below the figures relate to years ending on 30th November. Although small quantities of new season's wheat are normally received at rail before the end of November, the trade does not assume large proportions until the early part of December.

The following statement shows the yield, net exports, and apparent consumption per head in periods since 1892, flour being included at its equivalent in wheat:—

Period.	Average Annual Crop.	Average net Annual Export, Oversea and Interstate.	Apparent Consumption per annum.			
			Including Seed Wheat.		Excluding Seed Wheat at 1 bushel per acre.	
			Total.	Per head.	Total.	Per head.
	thousand bushels.	thousand bushels.	thousand bushels.	bushels.	thousand bushels.	bushels.
1892-1896	5,904	(-)2,310	8,214	6·6	7,231	5·9
1897-1903	10,694	791	9,903	7·3	8,237	6·1
1904-1908	19,102	7,505	11,597	7·8	9,514	6·4
1909-1915	25,765	11,958†	13,807	7·9	10,395	5·9
1916-1921	36,150*	18,945†	17,205	8·5	13,304	6·6
1922-1929	40,253	23,941‡	16,312	7·1	12,395	5·4

* Excludes "stock adjustments" of wheat pools; average, 420,000 bushels per year. † Partly estimate to ‡ Actual export, with allowance for stocks carried over. (—) Average net import.

The quantity of wheat used as seed in 1929-30, as recorded in returns of individual wheat-growers, was 4,303,000 bushels, the total area sown being 4,335,000 acres, some of which, it is understood, was re-sown on account of faulty germination.

Apart from showing estimates of the consumption of wheat this table indicates the steady growth of the wheat industry both as regards production and export over the periods immediately preceding and following the establishment of the wheat export trade in 1897.

The average annual crop does not represent the net result of the harvest as it includes the quantity used for seed. For this reason the apparent consumption is shown, including seed wheat which varies from season to season in relationship to the area sown and the conditions governing the sowing. The allowance is generally set down arbitrarily at 1 bushel of seed per acre sown. This is in excess of the quantity used for sowing on many farms, but it includes an allowance for the additional amount used when faulty germination necessitates more than one sowing. The estimated consumption excluding seed wheat is, therefore, an approximation with a limit of error of about half a million bushels or one-quarter of a bushel per head of population according as the annual seed requirements vary above or below 1 bushel per acre. It is estimated that, for the last period shown above (1922 to 1929) the average quantity of flour, wheat meal, etc., consumed per head of population was equivalent to 4·9 bushels of wheat. With due modification for variation in the allowance made for seed wheat, the quantity of wheat used for feeding poultry and other stock was in the vicinity of 2,000,000 bushels per annum.

This latter quantity, however, is much lower than the corresponding quantity for the previous period; which included nearly two years of very severe drought, when a considerable amount of wheat was used for feeding sheep. As this factor operated to increase the consumption of wheat during the period 1916-1921, the total quantity consumed in the period was above normal requirements. Furthermore, great difficulty was experienced in disposing of wheat abroad, and large quantities remained in the country for lengthy periods. Much of this wheat was damaged by wet weather, mice, and weevils, and rendered unfit for consumption in the ordinary way.

Including seed wheat, the maximum annual requirement for local consumption seldom exceeds a total of approximately 17,500,000 bushels, of which about 4,000,000 bushels (depending on the area sown) are used for seed purposes. The average annual consumption for all purposes in the eight years 1922 to 1929 was 16,312,000 bushels.

Marketing Wheat.

The comparison made between the production, export, and consumption of wheat and flour from New South Wales on a previous page shows that in recent years the average annual local consumption (excluding seed wheat) has been approximately one half of the average annual quantity exported overseas and interstate. As interstate trade in wheat and flour is comparatively small, the maintenance and further development of the wheat industry in New South Wales are dependent largely on world demand, and on the efficiency of the facilities for gaining access to over-sea markets on such conditions that it will pay local farmers to grow wheat in preference to other products. The price of wheat for export is determined by world's parity, which fluctuates with the world demand. The market for the exportable surplus of local wheat is found chiefly in Europe, but quantities of flour are sent to the countries and islands of the Pacific and Indian Oceans. The further extension of the market for local wheat in Europe is in some measure affected by the competition of great wheat-producing countries near the market—the United States, Canada, the Argentine, and possibly Russia—which derive advantages from shorter distances and lower ocean freights. These advantages, however, are counteracted to some extent by the greater land haulage necessary from the interior to the coast of some of these countries.

The movement of wheat and flour overseas and interstate is shown below. The particulars for the respective years relate to the twelve months ending 30th November, and therefore represent the movement following each harvest. Flour is expressed at its equivalent in wheat, viz., 48 bushels of grain to 2,000 lb. flour.

Year ended 30th Nov.	Total Crop.	Export Oversea.		Net Export Interstate.*		Stocks at 30th Nov.	
		Wheat.	Flour.	Wheat.	Flour.	Wheat and Flour.	
Expressed in thousand bushels of wheat.							
1923	...	28,668	2,020	6,844	2,065	1,170	2,299
1924	...	33,176	5,433	6,103	3,985	1,246	2,233
1925	...	59,767	31,824	7,299	3,013	1,286	1,863
1926	...	33,806	9,250	6,370	1,878	1,387	1,676
1927	...	47,541	12,813	7,703	4,957	1,859	4,870
1928	...	27,042	4,306	6,165	1,386	1,257	2,750
1929	...	49,257	17,120	7,879	2,912	1,848	5,159

* Partly estimated.

This table shows the comparative regularity in the export flour trade and the marked fluctuations in the quantity of wheat exported.

Further particulars of the flour trade are shown in the following table relating to financial years which do not, however, correspond very closely to wheat seasons:—

Year ended 30th June.	1924.	1925.	1926.	1927.	1928.	1929.
	bus.	bus.	bus.	bus.	bus.	bus.
Wheat gristed ...	19,684,075	18,844,711	20,674,708	20,598,188	19,133,823	21,478,082
	Flour expressed in tons (2,000lb.)					
Flour produced ...	409,645	395,409	434,407	431,532	400,363	449,011
Flour exported—						
Oversea* ...	159,156	132,322	165,790	153,971	101,646	183,200
Interstate†	31,510	31,243	38,800	37,416	40,820	48,364
Flour imported—						
Oversea ...	...	...	7	6	18	42
Interstate†	7,739	5,964	7,739	8,782	7,739	8,089

* Including ships' stores.

† Approximate.

The average quantity of flour consumed in New South Wales in the period was approximately 240,000 tons per annum. The estimated consumption per head of population is shown in chapter entitled "Food and Prices," and some further details regarding flour-milling are shown in chapter "Factories" of the Year Book.

Grading of Wheat.

The Wheat Act passed early in 1927 provided for the establishment of grades and standards of wheat in accordance with the recommendations of a Wheat Standards Board, but definite action to establish grades has not yet been taken.

Wheat for export is marketed on the basis of a single standard known as f.a.q. or fair average quality. In New South Wales the standard is fixed annually by a committee of members of the Sydney Chamber of Commerce and two Government representatives. Samples obtained from each of the wheat districts are weighed, and an average struck, which is used as a standard in all wheat export transactions.

Distinction is maintained between white and red wheats and no mixtures of white and red varieties are accepted for bulk handling. The proportion of red to white wheat in the harvest of 1925-26 was 3.24 per cent., or 1,090,000 bushels in a total of 33,643,000 bushels.

The following comparison shows the standard adopted in New South Wales for each of the past ten seasons, and the date on which it was fixed in each year:—

Year.	Date Fixed.	Weight of Bushel of Wheat. f.a.q.	Year.	Date Fixed.	Weight of Bushel of Wheat. f.a.q.
1920-21	10th Mar., 1921	1b.	1925-26	22nd Jan., 1926	1b.
1921-22	7th Feb., 1922	59½	1926-27	31st Jan., 1927	62½
1922-23	25th Jan., 1923	61	1927-28	19th Jan., 1928	61½
1923-24	14th Feb., 1924	61	1928-29	12th Jan., 1929	60½
1924-25	10th Feb., 1925	60½	1929-30	31st Jan., 1930	63
					61½

The weights shown above are those used for guidance in determining whether particular lots of wheat are at or above fair average quality, but not as a measure of quantity. Wheat is normally sold in New South Wales by weight (bushel of 60 lb.), and not by volume.

At present about two-thirds of the wheat is bagged on the farm and brought to the nearest railway station, whence that intended for export is carried in bags by rail to Sydney for shipment. At some of the stations the Railway Department has erected sheds, and a small charge is made for storage, but portions of large harvests have at times to be stored with scant shelter. At Darling Harbour, Sydney, where all the grain ships, except bulk carriers, are loaded, sheds and bag elevators have been provided.

The remainder or approximately one-third of the crop is handled in bulk as described below.

Wheat Arrivals.

As a rule small quantities of new season's wheat become available towards the end of November, the actual time varying under seasonal influences. Usually, most of the crop intended for sale has been sent to rail for transport before the end of February. The following comparison shows the quantity of wheat received at country railway stations in bags and in bulk during the season 1929-30:—

Week ended—	Quantity of Wheat Received during Week.	Total Quantity of Wheat Received to end of Week.	Four Weeks ended.	Quantity of Wheat Received during Four Weeks.	Total Quantity of Wheat Received to end of Four Weeks.
	bushels.	bushels.	1929-30.	bushels.	bushels.
1929.			December ... 28	14,026,627	15,962,100
November ... 30	1,945,473	1,945,473	January ... 25	8,822,397	24,784,407
7	2,764,803	4,710,276	February ... 22	819,984	25,604,391
December ... 14	4,462,116	9,172,392	March ... 22	41,829	25,646,220
21	4,854,351	14,026,743	April ... 19	77,823	25,724,043
28	1,935,357	15,962,100	May ... 17	85,317	25,809,360
1930.			June ... 14	114,375	25,923,735
4	3,006,288	18,968,388	July ... 12	83,919	26,007,654
January ... 11	3,045,630	22,014,018	August ... 9	(—) 4,856	25,602,798
18	1,975,968	23,989,986	September 6	(—) 2,263	26,000,535
25	794,421	24,784,407	October ... 4	28,278	26,028,813
			November 1	134,658	26,163,471
			November 22†	50,130	26,213,601

* Net after deducting withdrawals. † Three weeks.

Bulk Handling.

The circumstances leading to the erection of bulk handling facilities were described at page 584 of the Year Book for 1928-29.

Grain elevators have been constructed at 90 of the more important wheat receiving stations of New South Wales, with direct access to rail. These country elevators have a storage capacity at one filling of 15,863,000 bushels. A modern concrete and steel shipping elevator has been erected in Sydney, with a storage capacity of 6,750,000 bushels at one filling. It is connected with the railway system of the State by four lines of rail, and has a receiving capacity of 6,000 tons (approximately 224,000 bushels) per day, and a shipping capacity of 12,000 tons (approximately 448,000 bushels) per day of eight hours.

The loan expenditure on the works constructed to 30th June, 1930, was £3,989,158. The system was first put into operation in 1920-21, and has been steadily developing, as shown by the following table:—

Season.	Number of Plants Available in Country Districts.	Storage Capacity of Plants Available in Country Districts.*	Wheat Received.			Proportion of Wheat Received in Elevators.	
			In Country Elevators.	In Terminal Elevators from Non-Silo Stations.	Total.	To Total Crop.	To Total Quantity Received at Rail.
		bushels.	bushels.	bushels.	bushels.	per cent.	per cent.
1920-21	28	5,450,000	†	†	2,000,000	3·6	4·2
1921-22	28	5,450,000	†	†	4,335,000	10·1	12·7
1922-23	54	11,550,000	†	†	4,290,000	14·6	21·2
1923-24	58	12,550,000	5,410,574	1,028,232	6,438,806	19·4	25·4
1924-25	61	13,250,000	16,334,813	1,437,058	17,771,871	29·7	35·1
1925-26	62	13,500,000	8,295,436	841,185	9,136,621	27·0	34·9
1926-27	66	14,100,000	12,244,723	515,772	12,760,498	27·0	34·5
1927-28	73	15,180,000	6,177,720	169,459	6,347,179	23·5	32·3
1928-29	84	15,630,000	14,777,954	385,561	15,163,515	30·8	36·7
1929-30	90	15,863,000	8,739,874	146,869	8,886,743	26·2	34·2

*At one filling.

†Not available.

The quantity of wheat handled in bulk naturally fluctuates under the influence of the marked seasonal variations in the size of the wheat crop.

The quantities of wheat shipped in bulk during recent seasons were:—12,767,589 bushels in 1924-25; 4,313,816 bushels in 1925-26; 5,701,761 bushels in 1926-27; 1,788,966 bushels in 1927-28, 5,988,459 bushels in 1928-29; but in 1929-30, when shipments were delayed by the derangement in oversea markets, only 93,177 bushels had been shipped by 30th June, representing on the average about 40 per cent. of the quantities of grain shipped oversea during the period.

Wheat of two kinds was received at the elevators in 1929-30 for handling in bulk, viz., white (8,799,101 bushels) and red (87,642 bushels) of fair average quality. A fee of 2d. per bushel was charged for receiving, fixing quality, handling, storing and delivering wheat in trucks at country elevators, with an additional ½d. per bushel for receiving such wheat from trucks at terminal elevator, weighing in and weighing and loading out through shipping or truck spouts. Wheat was received at the terminal elevator from non-silo stations at a charge of ¾d. per bushel if in bulk trucks and 1½d. per bushel if in bags. These charges all included storage to 31st July, 1930, after which date an additional ½d. per bushel per week was charged. The silo management pays rail freight incurred by it in handling the grain, and this, together with all fees and other charges, is paid by the holder of the warrant upon delivery of the wheat from the silo. Approximately 199,000 bushels of rice were received into the terminal elevator in 1928-29 for storage in bulk. It was stored for approximately twenty-one months.

The financial operations in connection with the silos in the years ended 30th June, 1929 and 1930, were as follows:—

Receipts.			Expenditure.		
	1929. £	1930. £		1929. £	1930. £
Handling fees ...	148,378	68,485	Maintenance and work- ing expenses ...	64,671	47,537
Repayments to previous years' Votes ...	239	290	Rates ...	2,497	2,818
Sundry receipts...	...	68	Wheat adjustments ...	1,645	2
Sales of damaged grain	3,613	444	Refund of handling fees	78	20
Railway freight repay- ments ...	151,978	14,212	Railway freight ...	165,702	31,298
Total ...	304,208	83,499	Total ...	234,593	81,675

The amounts shown refer to cash received and expended in the periods covered. Excluding payments for railway freight, for which the silo management is agent only, the receipts in 1929-30 were £69,287 and the expenditure £50,377, leaving a cash balance of £18,910 net earnings available to meet interest charges and depreciation, etc. In 1928-29 the receipts were £152,230, the expenditure £68,891, and the balance £83,339.

Upon delivery of his wheat at the silo the owner receives a bulk wheat warrant showing particulars of the quantity and quality of the wheat and the place of delivery. It is a negotiable document, transferable by endorsement of the owner.

At present wheat is generally transported from the farms to the silos in bags fastened by clips or sewn, the bags being emptied and returned to the farmer for use in subsequent seasons. As the system is becoming more firmly established, farmers are acquiring bulk waggons. For conveyance from country stations to the terminal, the Railway Commissioners have provided special trucks.

The question of bulk handling of wheat in New South Wales, with special reference to the transition from bag handling, was the subject of inquiry by a Select Committee of the Legislative Council in November, 1920. An analysis of the findings of this committee appears in the Year Book for 1920. The system in operation in New South Wales was investigated and reported upon by a Victorian Parliamentary Committee in 1925.

Wheat Freights.

In the conditions governing the marketing of wheat abroad, the freight offering and its cost are very important factors.

A comparative statement is given below of the freights ruling for bagged-wheat cargoes carried by steam vessels from Sydney to London in pre-war and recent years:—

Year ended 30th June.	Freight.				Year ended 30th June.	Freight.			
	Per ton.		Equivalent per bushel.			Per ton.		Equivalent per bushel.	
	s. d.	s. d.	d.	d.		s. d.	s. d.	d.	d.
1912 ...	17 6	to 30 0	5½	to 9½	1928 ...	25 0	to 37 6	8	to 12
1913 ..	10 0	to 35 0	3½	to 11½	1929 ...	20 0	to 40 0	6½	to 12½
1914 ...	25 0	to 37 6	8	to 12	1930 ...	20 0	to 33 9	6½	to 11

The average rates of ocean freight from Australia to the United Kingdom in the principal exporting months of successive recent seasons have been as follow:—

Season.	Average Ocean Freight per Bushel of Wheat.							
	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.
	d.	d.	d.	d.	d.	d.	d.	d.
1925-26 ...	12½	13½	12½	9½	8	8	7¼	6¾
1926-27 ...	16½	16½	15	15½	15	12¾	12½	13
1927-28 ...	12	13	11	10	10	11	11¾	11¼
1928-29 ...	13¾	13¾	13	12½	11	9½	8½	8
1929-30 ...	8¼	8	8	7	6¾	7¾	8	8½

The rates of freight shown represent the mean of the weekly quotes for complete cargoes as shown in the International Crop Report. The rates per ton are converted into rate per bushel.

Wheat Pools.

An account of the circumstances which led to the creation of compulsory wheat pools by the Government, and of the basis upon which they were organised is contained in issues of the Year Book for 1921 and previous years. A summary of the final returns is published in the Year Book for 1923 at page 489.

Voluntary wheat pools were initiated in 1920-21, and a summary of the results of the various voluntary pools is furnished below.

Season.	Quantity Pooled.			Net Amount Realised by Sales.		Average Charges per bushel.*		Average Net Amount Received by Farmers at Country Sidings.	Net Amount Received by Farmers.
	Total.	Proportion to—		Total.	Average per bus.	Rail Freight.	Other.		
		Total Crop.	Quantity received at Rail.						
	bus.	per cent.	per cent.	£	s. d.	d.	d.	s. d.	£
1921-22	22,785,560	53.4	66.7	1,179,027	5 5.17	5.40	3.96	4 7.81	5,298,812
1922-23	11,655,806	40.8	57.6	2,956,739	5 1.35	5.37	4.66	4 3.32	2,492,129
1923-24	9,680,854	28.9	38.2	2,444,329	5 0.59	5.46	4.13	4 3.00	2,059,860
1924-25	13,639,063	23.8	26.9	4,215,853	6 2.17	5.40	4.23	5 4.54†	3,667,733
1925-26	740,600	2.2	2.8	230,820	6 2.71	5.38	4.28	5 5.6†	60,772
1926-27	8,849,851	18.7	23.9	2,454,439	5 6.56†	5.62	4.86	4 8.08†	2,067,838
1927-28	1,042,122	3.8	5.3	293,629	5 7.62†	5.67	4.87	4 9.06	24,763

* Including deductions for inferior wheat. † Average: 1d. more was paid for bagged than for bulk in 1924-25; ¼d. in 1925-26; ¼d. in 1926-27. ‡ Approximate.

No pool was conducted in the 1928-29 or 1929-30 seasons in New South Wales. The amount and date of each payment for the various pools to 1925-26 is stated on page 660 of the Year Book for 1926-27. For the 1926-27 pool the payments were 3s. 6d. per bushel (less dockages) on delivery, 1s. per bushel (less rail freight) on 8th June, 1927, 4d. per bushel on 1st November, 1927, 3½d. per bushel for bagged and 2d. per bushel for bulk on 29th December, 1927, and a final payment of 1.042d. per bushel on 21st March, 1928. In 1927-28 the progress payments per bushel were 3s. 6d. on delivery, 1s. less freight, on 23rd May, 1928, and 6d. per bushel on 14th August, 1928, with a final payment of 3.35d. per bushel bagged and 2.6d. per bushel bulk on 15th January, 1929.

Prices of Wheat.

The following table gives the average prices per bushel ruling in the Sydney market in each year since 1898. The figures for earlier years, published in the Year Book for 1919, exhibit clearly the tendency towards a

gradual reduction in the value of the cereal down to 1895, when the price was the lowest of the series. In 1896, however, owing to a decrease in the world's supplies, the price rose considerably, and led to an extension of cultivation throughout Australia. In the early years, when local production was deficient, the price in Sydney was generally governed by the prices obtained in the markets of Australian States where a surplus had been produced. Since the development of the export trade, however, it has been determined largely by the prices ruling in the world's market, although marked deficiencies in the local crop (such as occurred in 1920) at times have a determining influence on prices.

Year. ended Dec. 31.	February.	March.	Average Value for Year. ††	Year. ended Dec. 31.	February.	March.	Average Value for Year. ††
	per bushel.	per bushel.	per bushel.		per bushel.	per bushel.	per bushel.
	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
1898	4 0	4 0	3 8	1915†	5 6	5 6	5 5
1899	2 7½	2 9	2 9	1916†	5 1½	5 0½	4 10
1900	2 9	2 8	2 8½	1917†	4 9	4 9	4 9
1901	2 7	2 7	2 8	1918†	4 9	4 9	4 9
1902	3 2	3 2½	4 5	1919†	5 0	5 0	5 1½
1903	5 11½*	5 9½*	5 1½*	1920†	8 5*	8 10*	8 7½*
1904	3 0½	3 0½	3 2	1921†	9 0	9 0	8 8
1905	3 4½	3 3½	3 5	1922†	5 2	5 11	5 8
1906	3 1½	3 2½	3 3½	1923†	5 8	5 7	5 3½
1907	3 0½	3 1½	3 10	1924†	4 7	4 7	5 5
1908	4 4	4 5½	4 3½	1925†	6 9½	6 4	6 2½
1909	4 0½	4 6½	4 9	1926†	6 6	5 9	6 2
1910	4 1½	4 1	3 10	1927†	5 3	5 1	5 5
1911	3 7½	3 5	3 6	1928†	5 2	5 5	5 1½
1912	3 9½	3 8½	4 1	1929†	4 8	4 8	4 10½
1913	3 6½	3 7	3 2½	1930†	5 2	4 8½	4 7½§
1914	3 8	3 9½	4 1½				

* Imported wheat. † Shippers and Millers' buying quotes on trucks Sydney. †† Mean of monthly quotes.
† Price officially fixed on trucks Sydney of bagged wheat for flour for home consumption. § To June.

The prices quoted are per imperial bushel (60 lb.) of f.a.q. wheat in three-bushel bags in Sydney markets. The bag is sold with the wheat and is included in the weight paid for as wheat. The monthly averages represent the mean of daily prices, and the annual average is the mean of the monthly averages. Formerly practically the whole of the wheat marketed was in buyers' hands before the end of March, but in recent years the practice of pooling, and more recently still the introduction of the wheat elevators and storage by farmers have extended the period of marketing. Sales effected by growers after March, however, are not relatively large. No data are available as to the volume of monthly or weekly transactions, and it is impossible to determine weighted average prices accurately.

In the latter part of 1923 the price fell precipitately owing to the large surplus of production over world requirements, and the price remained for a time lower than in any year since the outbreak of war, although rather higher than in pre-war years. A marked diminution in the world's production of wheat in 1924 led to a world-wide rise in price in July, which continued until February, 1925, when the high average level of 6s. 9½d. per bushel was reached in Sydney market. A steep decline followed to 5s. 10½d. in April, 1925, and the average monthly price moved between 5s. 9d. and 6s. 2½d. until after the close of the buying season in 1926. It attained 6s. 10d. in August, 1926, and fell to 5s. 1d. in March, 1927, fluctuating

between that level and 5s. 8d. until the middle of 1928. In August, 1928, the price fell, in consequence of an unusually large world harvest, to 4s. 8d. and remained fairly constantly near that level until May, 1929, when it declined further. Early in June, 1929, the quotations were as low as 4s. 2d. per bushel. Under the influence of a diminution of world production and the holding of crops in the United States and Canada, the market recovered and before the end of July, 1929, the price had risen to 5s. 8d. per bushel. Although this price was not maintained, the monthly average exceeded 5s. per bushel until January, 1930, when markets became stagnant in consequence of a severe world-wide economic depression and of the accumulation of stocks in the principal supplying countries of the world. The price fell below 5s. per bushel in February, 1930, and a further heavy decline occurred between June and December, the average at the end of the year being 2s. 2d. per bushel.

Certain data relating to the prices of Australian wheat in local and over-sea markets have been brought together in the following table, which provides some interesting particulars of the course of prices in Australia and the United Kingdom. Owing to the variation of marketing conditions and the lapse of time between local sales and export and between export from New South Wales and import into the United Kingdom, the prices set against each month are not strictly comparable. The prices in all cases are per bushel of 60 lb.

Month.	Season 1928-29.					Season 1929-30.				
	Shippers and millers' quotes Sydney.	Average value declared to Customs. Sydney.	Average price c.i.f. Liverpool and Lond'n.	Average import value into United Kingdom.	Average rate of freight to United Kingdom.	Shippers and millers' quotes Sydney.	Average value declared to Customs. Sydney.	Average price c.i.f. Liverpool and Lond'n.	Average import value into United Kingdom.	Average rate of freight to United Kingdom.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
November ...	4 8	5 2	6 0	6 8½	1 1½	5 6½	5 8½	5 8½	6 0½	0 8½
December ...	4 7½	4 10½	5 10½	5 10	1 1½	5 2½	5 5½	6 0½	5 9	0 8
January ...	4 7½	4 10½	5 9½	5 9½	1 1	5 2	5 2½	5 10	6 0½	0 8
February ...	4 8½	4 10½	5 11½	5 11	1 0½	4 8½	5 1½	5 2½	5 6½	0 7
March ...	4 7½	4 10½	5 9½	5 11	0 11	4 5	5 6½	4 11	5 1	0 6½
April ...	4 6½	4 9½	5 7½	5 8	0 9½	4 7½	4 10	5 1	4 11½	0 7½
May ...	4 4½	4 8½	5 3	5 7½	0 8½	4 6	4 10	5 1	5 0½	0 8
June ...	4 3½	4 5½	5 3	5 6	0 8	4 3½	4 2½	4 11	4 11½	0 8½
July ...	5 1½	5 0½	6 1½	5 6	0 8½	3 10½	4 0	4 6½	4 10½	0 8
August ...	5 4	5 4	6 5	5 8	0 9½	3 9½	3 11½	4 7	4 7	0 9½
September ...	5 5½	5 7½	5 11½	5 11½	0 10	3 1½	3 6	3 11½	4 6½	0 10½
October ...	5 3½	5 10½	5 6½	5 10½	0 9½	2 ½	3 1½	3 7½	4 1	0 10½

In considering the prices shown above regard should be paid to the following factors:—

(1) The average of shippers' and millers' quotes represents the mean of the daily prices for bagged wheat on trucks Sydney, and they are usually for wheat for prompt delivery. The indications are that usually the greater part of shippers' and millers' purchases are made in the months of December, January, and February.

(2) The average values declared to the Customs relate to wheat exported in bags and in bulk, and refer to the month of shipment. Owing to delay in transferring the exportable portion of the harvest to the seaboard and the incidence of forward buying the averages in this column are not closely comparable with the prices in the first column. The values represent the amount remaining after deducting the cost of insurance and ocean freight

from the oversea selling price, where wheat is sold before export, and from the expected oversea price, where wheat is consigned for sale oversea. Therefore, they represent the average f.o.b. value Sydney without any deduction for cost of exchange, selling commission, etc., but with the cost of loading into ship included.

(3) The average prices c.i.f. Liverpool and London are those quoted for Australian wheat in the monthly Crop Reports of the International Institute of Agriculture. The quotations are generally those at the close of business for early delivery. They compare very closely with sales reported by cable from England for Australian wheat loading or about to load for export.

(4) The average import values into the United Kingdom also relate to Australian wheat, and represent the total value c.i.f. place of import or, when consigned for sale, the latest market price in England at time of import.

(5) The average rates of freight are those shown in the International Crop Reports.

The margins between the local and oversea prices are accounted for mainly by ocean freights, but also in part by cost of exchange, insurance, and handling charges, and in part by exporters' profits, and overhead expenses.

Cost of Growing Wheat in New South Wales.

The Select Committee on the Agricultural Industry in 1921 concluded from the data before it that proper harvesting and cultivation of wheat could not be carried out under conditions then existing at a lower cost than £3 5s. per acre (excluding insurance), and that it will require an average of 14 bushels to the acre, with a minimum price of 4s. 8d. per bushel at the nearest railway siding, to recoup this cost to farmers within 10 miles, and "that profit over and above a labourer's wage" accrued to the wheat-grower only when the price realised exceeded that amount.

Various attempts have been made to secure the data necessary to form a satisfactory estimate of the average cost of producing wheat in New South Wales; but as, either for grain or for hay, this depends largely upon the methods of culture, the area cultivated, the distance from the railway, and the soil conditions, the experiences of individual farmers differ very greatly, and analysis of farmers' budgets has given a wide range of results.

The factor which is probably the main cause of these differences is the efficiency of the producers. Wheat being the product of a large number of farmers working independently, it is natural that there should be greater variation in regard to efficiency than in other industries, where the producers are assembled under the supervision of experts, and where there are greater facilities for improving methods of production and for utilising labour and materials on the most economical basis.

However, hypothetical estimates have been made by Mr. A. H. E. McDonald, Superintendent of Agriculture, of the cost of producing wheat on unfallowed and on fallowed land. For the purpose of the estimates the area cropped annually is taken at 250 acres, viz., 230 acres for grain, and 20 acres for hay for horse feed; to crop this area in alternate seasons under the system for fallowing, the total area of the farm would be at least 500 acres. The value of the land was assumed to be £7 per acre, and the value of the plant £750.

In the case of fallowed land one crop is grown in two years, but the stubble and herbage on the land are available for at least six months, and where

sheep are kept, as is usually the case, this land is used for pastoral purposes, and the interest for only half the year of fallow is placed against agricultural operations.

Interest on land is allowed at the rate of 6 per cent. per annum, and interest and depreciation on plant at $13\frac{1}{2}$ per cent. Annual allowances are made of £20 for repairs, etc., and 9d. per bag for cartage to rail. Wages for extra help are allowed at award rates for a period of twelve weeks at sowing and harvest. In addition, the cost of $6\frac{1}{2}$ tons of superphosphate and of the bags necessary for handling the wheat is included at market rates each year. A special allowance is made for seed wheat, and it is assumed that the whole of the harvest is sold at average market rates.

On these bases comparison may be made between the cost of producing wheat under the conditions set out above and the return to a farmer who obtained the average yield per acre. Approximately one-half of the area sown in the State is fallowed, and as particulars of the yield from this land are obtained, it is possible to publish separate estimates for fallowed and unfallowed land, though in view of the explanation given on page 549 the results here published do not reflect accurately the relative profitableness of the policy of fallowing.

The following table provides an indication of the financial results of the operations of a wheat-grower cropping annually an area of 230 acres for grain and 20 acres for hay for horse-feed, under the conditions described:—

Item.	1926-27.		1927-28.		1928-29.		1929-30.*	
Average yield per acre bushels	13.0§	16.0§§	5.0§	11.2§§	10.6§	13.9§§	7.3§	10.8§§
Costs—	£	£	£	£	£	£	£	£
Land—Interest	105	157.5	105	157.5	105	157.5	105	157.5
Plant—Interest and Depreciation	99	99	99	99	99	99	99	99
Repairs	20	20	20	20	20	20	20	20
Wages—Extra help	52	52	52	52	52	52	52	52
Fertiliser, 6½ tons	34	34	37.5	37.5	36.5	36.5	36	36
Bags	54	66	23	50	37	49	25	37
Cartage to rail	37	46	17	32	27	36.5	21	31
Seed Wheat—50 lb. per acre	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
Total cost of cropping 230 acres for grain†	463.5	537	419	510.5	439	513	420.5	495
Cost of crop per acre†	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Value at rail crop per acre	2 0 3	2 6 7	1 16 5	2 4 5	1 18 2	2 4 7	1 16 7	2 3 0
Value at rail crop per acre	3 1 9	3 16 0	1 8 4	2 13 8	2 3 4	2 16 9	1 5 5	1 17 8
Apparent Net Return to Farmer, including payment for his labour other than cartage to rail. } 230 acres	1 1 6	1 9 5	(—) 0 8 1	0 9 3	0 5 2	0 12 2	(—) 11 2	(—) 5 4
	£247	£338	(—) £93	£106	£59	£140	(—) £128	(—) £61

* Preliminary. † Omitting value of farmer's labour and abnormal costs occasioned by drought.
 § Unfallowed land. §§ Fallowed land. (—) Indicates a loss.

In considering the estimates shown above, it is necessary to remember that the calculations are based on the annual average yields for the whole State, which are probably below those usually obtained by skilled farmers engaged exclusively in agriculture. In many cases wheat-growing is carried on in conjunction with other activities, and the profit arising from the production of grain is not the sole factor in the farmer's income, nor in determining whether he will grow wheat.

Again, in the southern districts, farmers generally use fertilisers and fallow their land extensively. Favoured by the natural advantage of

operating in a belt of winter rainfall, they have until recent years obtained better average yields than the farmers in the central and northern districts.

A summary of the results of the foregoing calculations for the past seven seasons is made in the following table which is published as an index of fluctuations and not as a table of actual results:—

Season.	Unfallowed Land.				Fallowed Land.				Average price of Wheat to farmer at railway siding.†
	Average yield per acre.	Cost excluding payment for farmer's labour.		Net Return including payment for farmers' labour.	Average yield per acre.	Cost excluding payment for farmers' labour.		Net return including payment for farmers' labour.	
		per acre.	per bus.			per acre.	per bus.		
	bus.	£ s.	s. d.	£	bus.	£ s.	s. d.	£	per bus. s. d.
1923-24	9.6	1 15	3 8	47	14.1	2 1	2 11	187	4 1
1924-25	14.8	1 19	2 8	538	19.7	2 6	2 4	794	5 10
1925-26	10.0	1 18	3 10	173	13.5	2 4	3 3	316	5 4
1926-27	13.0	2 0	3 1	247	16.0	2 7	2 11	338	4 9
1927-28	5.9	1 16	6 2	(—) 93	11.2	2 4	3 11½	106	4 9½
1928-29	10.6	1 18	3 7	59	13.9	2 5	3 2½	140	4 1
1929-30*	7.3	1 17	5 0	(—)128	10.8	2 3	4 0	(—) 61	3 6

(—) Denotes loss. * Preliminary, subject to revision. † Bagged wheat.

The net return to the farmer, as shown above, would be augmented, if he carted his wheat to rail. If he is the owner of the plant and land used, his income also embraces the interest allowed on these items, viz., £150 and £202.5, respectively, on unfallowed and fallowed land in 1928-29. These, however, are fairly charged against production. Additional costs of production which are not included in the statement are insurance and shire rates. Latterly the amount of these for unfallowed and fallowed land respectively were:—Fire insurance, £5 and £8; hail insurance, £23 and £31; shire rates, £10.5 and £15.75.

Where farmers have provided themselves with special bulk-handling facilities there should be an additional allowance *per contra* for interest and depreciation, and where the wheat is carried to silos in bags fastened by clips it is estimated that bags can be used a number of times. In the latter case the farmer's expenditure for bags would be only a fraction of that shown above. In addition there would be a saving of the cost of ramming and sewing, estimated at 2d. per bag. On the other hand, the farmer who sells in bags regains part of the difference because he is paid for the weight of the bags as wheat, which represents a return (at present prices) of nearly 2d. on the cost of his bag. In addition, bagged wheat is generally sold at from 1d. to 2d. more per bushel than bulk wheat. Still, making allowance for all factors, it is estimated by the Director of Agriculture that farmers handling their wheat in bulk make a saving in their costs amounting to approximately, 8d. per bag. This should be allowed for in considering the foregoing tables.

Although this statement is expressed in terms of money, it does not purport to furnish any guide to the actual profits of individual farmers. It is hypothetical, and illustrates the combined effects of prices, yields, and costs of production on the operations of wheat-farmers in recent years, thereby providing an index of prosperity. It shows the highly speculative nature of the wheat-growing industry.

World Production of Wheat.

The world's production of wheat during recent years in comparison with the pre-war average is shown in the following table compiled from the publications of the International Institute of Agriculture:—

Year ended 30th June.	Northern Hemisphere.	Southern Hemisphere.	Total.	Total (excluding Russia).
Thousand Bushels.				
1909-1913 (average) ...	3,497,140	277,943	3,685,083	2,829,750
1923	2,991,238	340,626	3,331,864	3,173,743
1924	3,406,292	429,377	3,835,669	3,505,437
1925	3,033,451	404,089	3,437,540	3,106,953
1926	3,623,804	355,972	3,979,776	3,268,226
1927	3,756,095	433,119	4,189,214	3,381,264
1928	3,888,560	425,760	4,314,320	3,568,435
1929	4,135,208	534,369	4,669,577	3,876,293
1930	3,760,204	328,646	4,088,850	3,349,946

The countries included in the above summary are those comprised in the total shown in the next succeeding table excluding Turkey.

The following statement, based on information contained in the Reports of the International Institute of Agriculture, shows the quantity of wheat produced in the leading countries of the world during the past two seasons in comparison with the quinquennial average maintained before the war:—

Northern Hemisphere.	Annual Production of Wheat in Thousand Bushels.			Southern Hemisphere.	Annual Production of Wheat in Thousand Bushels.		
	Average, 1909-13. ‡	1928.	1929. *		Average, 1909-10- 1913-14.	1928-29.	1929-30. *
Europe—				South America—			
Russia (Soviet)† ...	\$755,323	793,284	738,904	Argentina ...	146,752	307,360	143,175
France	316,973	281,283	319,861	Other Countries ...	92,087	51,000	40,000
Italy	182,951	228,596	260,669	Total, S. America	178,839	358,360	183,175
Spain	129,174	119,884	149,266	Australasia—			
Germany	151,868	141,592	123,073	New South Wales	26,717	49,274	33,948
Roumania	87,608	115,544	99,752	Victoria	27,656	46,818	25,413
Great Britain and				South Australia ...	22,843	26,826	23,345
Ireland	59,850	49,762	49,758	Western Australia ...	5,671	33,790	39,081
Hungary	169,289	99,211	71,852	Queensland	1,250	2,516	4,250
Bulgaria	42,086	49,153	33,140	Tasmania	806	455	430
Czechoslovakia ...	...	51,499	48,065	Total, Australia ...	84,943	159,679	126,467
Poland ... ..	...	59,218	60,259	New Zealand	7,885	8,400	7,307
Belgium	14,863	17,986	15,995	Total, Australasia	92,828	168,079	133,774
Austria	67,381	12,917	11,581	Southern Africa—			
Yugo-Slavia	14,715	103,294	94,998	Union of South			
Other Countries ...	41,468	77,955	80,904	Africa	6,264	6,930	10,697
Total, Europe† ...	2,033,559	2,201,178	2,158,077	Other	12	1,000	1,000
Asia—				Total, S. Africa	6,276	7,930	11,697
British India	351,103	290,864	317,595	Total, Southern Hemisphere ...	277,943	534,369	328,646
Japan	23,586	30,812	30,496	Total, The World, as far as Reported	3,845,083	4,669,577	4,088,850
Russia in Asia ...	†	†	†	Countries which have not reported since 1914—			
Turkey	‡160,000	...	...	China§§	590,000	...	...
Other Countries ...	6,988	15,085	24,663	Other	293,929	...	...
Total, Asia† ...	541,677	336,761	372,754				
Northern Africa—							
Egypt	34,039	37,296	45,228				
Other Countries ...	60,415	67,173	72,027				
Total, N. Africa	94,454	104,469	117,255				
North America—							
United States ...	696,006	914,876	806,508				
Canada	130,042	566,726	293,899				
Other Countries ...	71,402	11,198	11,711				
Total, N. America	897,450	1,492,800	1,112,118				
Total, Northern Hemisphere ...	3,567,140	4,135,208	3,760,204				

* Preliminary. † The figures for Russia in Europe relate to territory comprised in the Union of Socialist Soviet Republics, including territory in Asia. ‡ Old boundaries. §§ Figures for one year only.

MAIZE.

Before the development of the wheat-exporting industry of New South Wales maize-growing was the most extensive single agricultural pursuit. It is now the second largest crop grown in the State, but the harvest is small in comparison with that of wheat, and is insufficient for local consumption.

Maize is cultivated chiefly in the valleys of the coastal rivers, where both soil and climate are peculiarly adapted to its growth. On the Northern Tableland also good results are obtained.

Maize-growing reached its highest development locally in 1910, and since then production has decreased. The following statement shows a comparison of the extent of maize-growing since the season 1900-01, with the total value and average value per acre for each crop:—

Season.	Area under Maize for Grain.	Production.		Farm Value of Crops.	
		Total.	Average yield per Acre.	Total.	Per Acre.
	acres.	bushels.	bushels.	£	£ s. d.
1900-01	206,051	6,293,000	30·5	839,032	4 0 6
1910-11	213,217	7,594,000	35·6	791,050	3 14 2
1915-16	154,130	3,774,000	24·5	723,270	4 13 10
1920-21	144,105	4,176,000	29·0	974,260	6 15 2
1921-22	146,687	3,976,000	27·1	894,670	6 2 0
1922-23	138,169	3,287,000	23·8	890,260	6 8 10
1923-24	166,974	4,623,000	27·7	847,550	5 1 6
1924-25	146,564	4,208,000	28·7	631,230	4 6 2
1925-26	120,955	3,278,000	27·1	805,820	6 13 3
1926-27	128,516	3,599,000	28·1	1,004,710	7 16 4
1927-28	148,801	3,930,570	26·4	622,330	4 3 8
1928-29	106,835	2,506,470	23·5	543,150	5 1 8

The decline in the area sown with maize has been accompanied by a decrease in the average yield per acre. The average value per acre has risen, but the increase has not been sufficient to compensate for the decline in the purchasing power of money due to a generally higher level of prices.

The average farm value of the maize crops of the last five years shown above was only £5 9s. 11d. per acre, or approximately 26 per cent. above the average for the quinquennium ending in 1910. The general level of wholesale prices in the latter period was 80 per cent. higher than in the former.

The following statement shows the area under maize for grain in New South Wales during the season 1928-29, with the production and average yield in each division:—

Division.	Area under Maize for Grain.	Yield.	
		Total.	Per Acre.
	acres.	bushels.	bushels.
Coastal—			
North	52,027	1,406,004	27·0
Hunter and Manning	19,441	339,486	17·5
Metropolitan... ..	1,778	68,643	38·6
South	6,932	188,772	27·2
Total	80,178	2,002,905	25·0
Tableland—			
Northern	14,313	286,578	20·0
Central	3,462	82,710	23·9
Southern	111	1,662	15·0
Total	17,886	370,950	20·7
Western Slopes	8,683	131,097	15·1
Central Plains, Riverina, and Western Division.	88	1,513	17·3
All Divisions	106,835	2,506,470	23·5

The principal factors in the local supply of maize in recent seasons are shown in the following table. The particulars relate to calendar years, as the maize crops of the State are harvested between January and August. Complete records are not available of the interstate imports and exports, but it is considered that the quantity unrecorded is not large.

Year.	Production.	Import.		Export.		Available for Consumption. * †
		Oversea.	Interstate. †	Oversea	Interstate. †	
	bus.	bus.	bus.	bus.	bus.	bus.
1924 ...	4,623,000	317,000	1,397,000	53,000	62,000	6,222,000
1925 ...	4,208,000	180,000	1,623,000	51,000	93,000	5,867,000
1926 ...	3,278,000	1,434,000	221,000	41,000	23,000	4,669,000
1927 ...	3,599,000	249,000	2,543,000	6,000	106,000	6,279,000
1928 ...	3,931,000	4,000	1,740,000	41,000	56,000	5,578,000
1929 ...	2,506,000	‡	2,269,000	2,000	6,000	4,767,000

* Subject to adjustment for carry over.

† Records of interstate movement are incomplete.

‡ Negligible.

The annual requirement of maize is very variable, depending largely on the nature of the pastoral season and the price and size of available supplies. The large importation in 1927 is attributed to the demand for fodder for sheep and other live stock during the acute though short drought.

The imports interstate are derived almost exclusively from Queensland, while the imports oversea are brought from South Africa. A general duty of approximately 2s. 0d. per bushel is imposed on maize imported oversea, except from New Zealand, on which the duty is approximately 1s. 6d. per bushel.

OATS.

Oats is sown in New South Wales mainly as a hay crop, the areas for respective purposes being as follow in 1928-29—Oats for hay, 214,137 acres; oats for grain, 126,743 acres; and oats for green food, 62,687 acres. The combined area—403,567 acres—is 32,448 acres greater than that of the previous season, and this total has not been exceeded except in 1924-25.

The elevated districts of Monaro, Argyle, Bathurst, and New England contain large areas of land on which oats could be cultivated with excellent results, as it thrives best in regions which experience a winter of some severity.

Omitting from account small areas, the highest average yield of oats grain in any division in 1928-29 was 19.9 bushels per acre, obtained from 47,729 acres in the South-western Slopes Division.

The principal divisions in respect of the cultivation of oats for grain were the Riverina Division, with 55,389 acres producing 812,346 bushels, an average of 14.7 bushels per acre, the South-western Slopes, where 47,729 acres produced 949,608 bushels of grain, an average of 19.9 bushels per acre, and the Central Tableland with 9,136 acres producing 177,801 bushels, or an average of 19.5 bushels per acre. These three divisions between them produced nearly 90 per cent. of the oats grown in the State.

The following table gives statistics of the cultivation of oats for grain since 1900-01:—

Season.	Acres under Oats for Grain.	Production.		Farm Value of Oats for Grain.	
		Bushels.	Bushels per Acre.	Total.	Per Acre.
				£	£ s. d.
1900-01	29,383	593,548	20·2	59,355	2 0 6
1910-11	77,991	1,702,706	21·8	177,360	2 5 6
1915-16	58,636	1,345,698	23·0	173,820	2 19 3
1920-21	77,709	1,642,700	21·1	241,480	3 2 2
1921-22	69,795	1,169,900	16·8	199,820	2 17 3
1922-23	74,006	1,250,803	16·9	234,530	3 3 5
1923-24	86,693	1,570,300	18·1	268,260	3 1 9
1924-25	123,517	2,511,400	20·3	293,000	2 7 5
1925-26	101,097	1,615,650	16·0	383,720	3 15 11
1926-27	105,115	1,898,750	18·1	339,880	3 4 8
1927-28	114,988	1,654,560	14·4	324,010	2 16 4
1928-29	126,743	2,183,880	17·2	254,860	2 0 3

The oats crop is harvested in December, and therefore constitutes the local element of supply for the calendar year following. The sources from which the local crop has been supplemented, and the quantity available for consumption in each of the past five years, is shown in the following table:—

Year.	Production.	Import.		Export, Oversea and Interstate.	Available for Consumption.†
		Oversea.	Interstate.‡		
	bus.	bus.	bus.	bus.	bus.
1924 ...	1,570,300	2,000	681,700	15,700	2,238,300
1925 ...	2,511,400	1,900	291,000	43,600	2,760,700
1926 ...	1,615,600	235,900	390,503	19,100	2,223,100
1927 ...	1,898,700	432,700	411,200	49,100	2,723,500
1928 ...	1,654,600	370,500	450,500	50,000	2,435,600
1929 ...	2,183,900	6,800	432,500	21,700	2,601,500

† Subject to adjustment for carry-over.

‡ Omitting considerable quantities imported interstate at Newcastle.

A duty of 1s. 6d. per cental, or approximately 7d. per bushel of 40 lb., is imposed on oats imported oversea. In 1924 and 1925 practically the whole local supply was produced in New South Wales and other Australian States, but in the three following years an appreciable part of the supply was obtained from other countries, mainly from New Zealand.

At present the market for oats is chiefly in the metropolitan and Newcastle districts, and the demand depends mainly upon the price of maize.

The local yield per acre is considerably below that of the important producing countries, and the total yield is insignificant compared with the world production, which usually amounts to more than 4,000,000,000 bushels per year.

BARLEY.

Barley is produced only on a moderate scale in New South Wales, and supplies for local consumption are imported from other States. Although there are several districts where the necessary conditions as to soil and drainage present inducements for cultivation, particularly with regard to the malting varieties, barley is grown mainly in the North-Western Slope, the South-Western Slope, and the Riverina Divisions. The areas under crop in other districts are small and do not call for special notice. The following table shows the area under barley for grain, together with the production at intervals since 1900-01.

Season.	Area under Barley for Grain.	Production.		Season.	Area under Barley for Grain.	Production	
		Total.	Average per Acre.			Total.	Average per Acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1900-01	9,435	114,228	12.1	1923-24	4,357	71,910	16.5
1910-11	7,082	82,005	11.6	1924-25	6,658	118,300	17.8
1915-16	6,369	114,846	18.0	1925-26	6,614	105,150	15.9
1920-21	5,969	123,290	20.7	1926-27	5,629	100,260	17.8
1921-22	5,031	83,950	16.7	1927-28	5,600	65,850	11.8
1922-23	3,899	55,520	14.3	1928-29	5,024	80,910	16.1

Considerable fluctuation has occurred in the area cultivated, while the grain yield has varied greatly. The average crop during the last ten years has been about 15 bushels per acre.

Of the area cropped for grain in 1928-29, 2,612 acres yielded 41,880 bushels of malting barley and 2,412 acres yielded 39,030 bushels of other barley. In addition, 817 acres were cropped for hay and 4,627 acres for green food.

RICE.

Rice growing trials were made intermittently in New South Wales and other Australian States from 1891 to 1922 with indifferent success, but in the latter year encouraging results were obtained from trials on the Murrumbidgee Irrigation Area by the use of three varieties imported from America. Further successful trials were made in the 1923-24 season, and in 1924-25 commercial trials were made on 153 acres which yielded approximately 16,200 bushels or 304½ tons of "paddy" rice—an average yield of 106 bushels per acre. The favourable prices received for this harvest, coupled with the high average yield, encouraged many other growers to experiment with the crop, and in 1925-26 a total area of 1,556 acres was sown on the Murrumbidgee Irrigation Area, but a considerable portion of the crops failed wholly or in part owing to the adverse season and the experimental nature of many of the sowings. The yield was very low, viz., 61,100 bushels, or an average of 39.2 bushels per acre.

The progress in subsequent years was as follows:—

Year.	Number of Growers.	Area Harvested.	Yield (Paddy Rice).	Value of Yield to Farmer.	Average per acre.	
					Yield.	Value.
		acres.	bus.*	£	bus.	£
1926-27 ...	66	3,958	214,740	48,350	54.27	12.2
1927-28 ...	127	9,891	879,113	181,320	88.88	18.3
1928-29 ...	221	14,627	1,307,520	201,850	93.21	14.4

* 42 lb. per bushel.

The price received by growers f.o.r. Leeton was fixed by the rice milling firms at £10 10s. per ton in 1925-26, and £12 per ton in 1926-27, subsequent to the imposition of an import duty of 3s. 4d. per cental on uncleaned rice and 6s. per cental on cleaned rice. In 1927-28 the price was \$11 per ton f.o.r. Leeton. The 1928-29 harvest was marketed by a rice marketing board appointed under the Marketing of Primary Products Act.

Excluding the quantity used for seed, the consumption of rice in New South Wales is about 5 lb. per head of population. Thus it would appear that the annual requirement is approximately 12,300,000 lb. of commercial rice, equivalent to approximately 475,000 bushels (42 lb.) of "paddy" rice as harvested by the grower. It is possible, however, that if local rice can be produced in regular supply at a price attractive to consumers, the local demand may be increased.

The volume of oversea trade of New South Wales in rice in each of the past six years is shown below. The proportion of Australian grown rice in the exports is negligible.

Year.	Import oversea.				Export oversea.			
	Cleaned or partly cleaned.		Uncleaned.*		Cleaned.		Uncleaned.*	
	cwt.	£	cwt.	£	cwt.	£	cwt.	£
1923-24 ...	257,364	204,432	131,156	90,725	89,741	94,702	...	...
1924-25 ...	59,837	58,824	116,695	68,655	96,579	100,734	17	19
1925-26 ...	67,752	60,271	116,015	76,873	74,027	76,624	2,034	1,384
1926-27 ...	129,191	103,814	123,899	77,215	59,385	60,564	29	32
1927-28 ...	77,953	66,192	10,450	6,739	44,580	47,131	...	...
1928-29 ...	57,227	51,211	6	6	53,771	54,877	30	35
1929-30 ...	74,222	60,867	3,088	2,126	62,145	62,283	1,214	1,152

* Stated to be after removal of husks, viz., 16 to 20 per cent. of weight of "paddy" rice.

The evidence submitted to the Tariff Board at an investigation conducted in 1926 showed that the anticipated fair average yield over a period of two years was about 60 bushels per acre, and the quantity of seed required about 2½ bushels per acre. It was estimated that there were approximately 53,000 acres of land suitable for rice growing on the Murrumbidgee Irrigation Area, of which it was anticipated that ultimately 40,000 acres would be used for the purpose, 20,000 acres being cropped annually with one year's fallow.

HAY.

The production of wheaten and oaten hay varies in accordance with the seasonal factors controlling yield, the prospects for grain crops and the market demand for hay. In favourable years considerable stocks are stacked for use in dry seasons. The production of lucerne hay, though subject to considerable fluctuation, is more constant than that of wheaten and oaten hay. The following table shows the production of hay in each of the last five years (July to June):—

Kind of Hay.				1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
				tons.	tons.	tons.	tons.	tons.
Wheaten	...	...	...	537,057	444,215	383,915	342,974	390,255
Oaten	...	...	...	400,431	244,520	293,659	212,535	242,740
Lucerne	...	...	...	213,335	176,336	189,070	197,599	159,158
Other	...	...	...	1,780	1,204	1,123	1,068	1,102
Total	...	...	...	1,152,603	866,275	877,767	754,176	793,255

GRAPES.

Between 1920 and 1924 there was rapid expansion in the area devoted to grape-growing in New South Wales, which was largely due to the establishment of the industry on the Murrumbidgee and Curlwaa Irrigation Areas and to the settlement of returned soldiers on agricultural holdings adapted to grape-growing.

The following dissection of the total area cultivated for grapes shows that until 1927-28 the greatest absolute increase in area was in grapes of wine varieties, but that the area of grapes in bearing for drying has increased more than fourfold in a period of eight years:—

Varieties of grapes.	1920-21.	1921-25	1925-26.	1926-27.	1927-28.	1928-29.
	acres.	acres.	acres.	acres.	acres.	acres.
Table.	2,087	2,411	2,464	2,545	2,576	2,644
Drying	699	1,585	2,298	2,865	2,965	3,357
Wine	4,589	6,958	6,977	7,051	7,456	7,077
Total, bearing	7,375	10,954	11,739	12,461	12,997	13,078
Nct bearing ... {Wine Other}	3,408	3,783	2,726	{ 497 1,323	{ 530 1,353	{ 1,600 1,122
Grand Total	10,783	14,737	14,465	14,281	14,880	15,200

The production of the vineyards according to the purposes for which it was used is shown in the following comparison. The quantities do not relate in every case to the acreages as classified in the preceding table, as the produce of some varieties of vines cultivated usually for a particular purpose may be used ultimately in a different way:—

Production.	1919-20.	1921-25.	1925-26.	1926-27.	1927-28.	1928-29.
Table grapes ... cwt.	53,560	71,800	76,740	93,780	85,000	85,560
Dried grapes—						
Sultanas	4,987	12,311	19,386	35,857	25,601	55,330
Currants	2,465	5,953	6,132	9,106	4,536	9,755
Raisins & lexias ..	2,097	6,869	3,783	5,207	5,232	4,757
Grapes used for wine.,	105,360	163,100	203,940	263,840	313,840	250,880
Wine made ... gal.	717,893	1,171,264	1,240,893	1,625,507	2,295,030	1,481,846

The volume of output shows some variation in accordance with the effect of seasonal conditions on average yields. The most striking feature of the table is the rapid increase in the production of sultanas.

Particulars of the production from vineyards in irrigation areas are shown in the section "Water Conservation and Irrigation" of this Year Book.

The most important viticultural district was formerly in the Hunter and Manning Division, the area cultivated for grapes in that Division in 1928-29 being 2,118 acres for wine-making, 241 acres for table use, 1 acre for drying, and 117 acres of young vines. However, the area cultivated for grapes is now largest in the Riverina Division, where 3,863 acres were grown in 1928-29 for wine-making, 638 acres for table use, 2,250 acres for drying, and 991 acres of young vines. The greater part of these areas is in the Murrumbidgee Irrigation Area.

Considerable quantities of grapes for wine and dried fruits are grown on the irrigation areas of the Australian States, mainly in Victoria and South Australia. There is a large interstate trade, but in recent years the production of dried fruits has exceeded the Australian demand, and it has become necessary to develop an export trade for the disposal of the surplus. On account of the difficulty in obtaining satisfactory prices abroad, legislation was passed by the States concerned and by the Commonwealth to make provision for organised marketing. In this way the local and the less profitable export trade may be distributed on an equitable basis amongst the producers in the various States, while the Commonwealth may assist in the export and disposal of the dried fruits in the oversea markets.

The main provisions of the Dried Fruits Act, 1927, passed in New South Wales were submitted to a poll of the growers before they were brought into operation. The Act, which is similar to enactments passed in Victoria and South Australia, provides for the constitution of the New South Wales Dried Fruits Board to control the marketing of dried fruits (*i.e.*, currants, sultanas, and lexias) for consumption in the State, for the registration of growers, dealers, etc., and for the imposition of a levy on the growers to meet expenses of administration. The levy has been fixed at the rate of $\frac{1}{8}$ d. per lb. of the dried fruits produced by each grower.

The export trade in these dried fruits is controlled by the Dried Fruits Control Board constituted under Federal legislation. The Board consists of one representative of the Commonwealth Government, four representatives of the growers, and two members with commercial experience appointed by the Commonwealth. A London agency has been established to arrange conditions governing export and to accept control of dried fruits for handling and distributing. For financing the activities of the Board a charge, not exceeding $\frac{1}{8}$ d. per lb., may be levied on dried fruits exported from the Commonwealth.

The export trade in wine is assisted by a bounty payable by the Commonwealth Government. Under the Wine Export Bounty Act of 1924 the rate of bounty was 4s. per gallon on fortified wine exported from the Commonwealth during the three years ended 31st August, 1927. It was reduced to 1s. 9d. per gallon as from 1st September, 1927, and further reduced to 1s. per gallon, except on wine exported to Canada for consumption there, as from 8th March, 1928. During the year ended 30th June, 1926, bounty amounting to £32,609 was paid on 163,043 gallons of wine exported from New South Wales; in 1926-27 a sum of £49,572 was paid on 247,858 gallons, and in 1927-28 it amounted to £30,330 on 168,213 gallons.

BANANAS.

Banana culture developed rapidly in the Tweed River district of the North Coast division from 1914 to 1922, but subsequently it was almost extinguished by a disease known as "bunchy top." In August, 1923, the Governments of the Commonwealth, New South Wales and Queensland, began a joint investigation. Each contributed £1,500 to defray expenses, and a Bunchy-top Control Board was appointed. As a result of its investigations the Committee determined that bunchy top was a virus disease transmitted mainly by the banana aphid and by the transfer of diseased plants, also that there was no resistant or immune banana stock. The committee submitted recommendations for stringent action in controlling the disease, based mainly on the registration of banana plantations, the prompt destruction of all infected plants, the breeding of clean stock, the prevention of transmission of infected plants, and the destruction of deserted plantations.

The following table shows the area cultivated for and the production of bananas in each year since the industry reached its maximum development in 1922:—

Year ended 30th June.	Area.			Production.	
	Bearing.	Not bearing.	Total.	Cases.	Farm value.
	acres.	acres.	acres.		£
1922	4,570	898	5,468	433,533	260,120
1923	3,300	507	3,807	233,526	151,740
1924	1,604	250	1,854	94,983	95,410
1925	1,002	502	1,504	60,673	47,090
1926	1,071	658	1,729	68,167	50,550
1927	1,378	468	1,846	64,543	52,730
1928	1,229	763	1,992	74,703	56,030
1929	1,060	852	1,912	81,455	61,090

The quantity of bananas imported oversea in 1927-28 was 7,756 centals, valued at £9,337. The duty on bananas imported oversea other than from Norfolk Island is 1d. per lb.

FRUIT AND VEGETABLE GROWING.

In 1928-29 the area of land on which fruit (including grapes, bananas, and pineapples) was grown was 91,209 acres, and the value of production therefrom £2,259,680.

The importance of fruit and vegetable growing as industries is shown by the following comparison, which relates to the area and value of production of each of the principal classes of crop on holdings of 1 acre and upwards in extent:—

Kind of Crops.	1927-28.			1928-29.		
	Area not yet Bearing.	Area in Bearing.	Value of Crop.	Area not yet Bearing.	Area in Bearing.	Value of Crop.
	Acres.	Acres.	£	Acres.	Acres.	£
Orchards—Citrus ...	7,301	26,056	765,240	6,889	26,366	913,110
Other† ...	8,894	32,147	957,548	8,229	31,893	818,150
Total	16,195	58,203	1,722,788	15,118	58,259	1,731,260
Vineyards	1,883	12,997	313,700*	2,122	13,078	416,910*
Market Gardens ...	...	7,729	619,020	...	7,709	689,440
Separate Root Crops ...	...	23,322	215,400	...	16,621	374,720
Minor Crops of Fruit and Vegetables ..	931	14,771	316,045	1,038	14,458	442,610
Grand Total ...	19,009	117,022	3,186,953	18,278	110,125	3,654,940

* Includes value of wine and spirit made from grape juice.
pineapples, and berry fruits.

† Excludes passion-fruit, bananas,

The cultivation of many classes of fruit is capable of considerable expansion, and as there exist large areas of suitable soil with climatic conditions ranging from comparative cold on the highlands to semi-tropical heat on the North Coast, a large variety of fruits can be cultivated. In the vicinity of

Sydney, citrus fruits, peaches, plums, apples, and passion-fruit are most generally planted. On the tablelands, apples, pears, apricots, and all the fruits from cool and temperate climates thrive well; in the west and in the south-west, citrus, pome and stone fruits, figs, almonds, and raisin-grapes are cultivated; and in the north coastal districts, bananas, pineapples, and other tropical fruits are grown. Citrus fruits are cultivated extensively, and form the largest element in local fruit production.

With the exception of oranges and mandarins, the fruit production of New South Wales is far below the demand. In 1928-29 the quantity of fruit imported at Sydney by sea from other States was 1,384,339 cases, valued at £539,066, and, in 1929-30, 871,085 cases valued at £395,260. The quantity of fruit used for jam and fruit-canning in factories in New South Wales during 1928-29 was 11,865 tons, valued at £164,901. Fresh fruit (other than citrus) to the value of £11,260 was exported overseas from New South Wales in 1928-29 and £25,356 in 1929-30 in addition to preserved fruit and vegetables, pulp and juice of local origin valued at £40,989 in 1928-29, and £41,588 in 1929-30; and dried fruits of local origin valued at £34,296 in 1928-29, and £20,967 in 1929-30. Good seasons generally produce a glut of stone fruits, for which apparently there is no system of efficient handling.

The extent of cultivation of each important class of fruit on holdings of 1 acre and upwards during the past two seasons is shown in the following table:—

Fruit.	1927-28.				1928-29.			
	Number of Trees not yet Bearing.	Trees of Bearing Age.		Number of Trees not yet Bearing.	Trees of Bearing Age.			
		Number.	Yield.		Number.	Yield.		
Oranges—			bushels.			bushels.		
Seville	11,012	50,457	56,866	10,212	43,044	55,612		
Washington Navel ...	197,364	459,678	505,308	182,969	493,051	582,734		
Valencia	261,389	626,172	669,559	253,546	675,310	897,231		
All other	47,979	442,160	533,927	39,906	425,323	547,484		
Lemons	37,581	228,026	345,369	38,292	232,248	376,577		
Mandarins	138,359	576,660	469,608	125,808	573,492	537,363		
Other Citrus	8,007	21,387	24,346	7,929	27,730	34,819		
Apples	288,346	936,587	1,254,074	307,711	965,816	639,720		
Pears—								
Williams	35,083	159,086	141,003	31,434	165,618	156,979		
All other	29,557	159,757	120,664	27,661	155,196	129,844		
Peaches—								
Dessert and Drying...	48,896	337,314	280,013	54,726	348,527	257,905		
Canning	82,005	203,572	283,662	46,837	176,007	172,725		
Nectarines...	9,566	29,344	22,792	8,529	31,556	20,390		
Plums	46,060	225,497	153,330	40,160	219,509	126,339		
Prunes	82,650	209,268	84,141	71,865	217,810	104,673		
Cherries	89,780	207,651	70,807	83,949	230,800	111,924		
Apricots	20,534	148,627	149,271	17,823	161,222	153,113		
Quinces	8,434	23,964	30,455	9,082	21,390	21,557		
Persimmons	1,577	11,240	13,462	1,151	10,465	6,653		
Passion Fruit	†68,375	†168,649	73,230	†66,082	†215,425	40,211		
†All other ... ..	...	...	14,440	...	...	13,611

† Vines.

‡ Excludes bananas and pineapples.

The figures shown above include returns from private orchards, which are, however, of comparatively small extent.

Citrus Fruits.

Particulars of citrus orchards are shown in the following statement:—

Season.	Area under Cultivation (Citrus Fruits.)			Production.		Value of Production.*	
	Productive.	Not bearing.	Total.	Total.	Average per Productive Acre.	Total.	Average per Productive Acre.
	acres.	acres.	acres.	bushels.	bushels.	£	£ s. d.
1900-01	11,013	3,952	14,965	648,628	59	81,080	7 7 3
1910-11	17,465	2,643	20,108	1,478,306	85	199,360	11 8 3
1920-21	21,990	6,445	28,435	2,009,756	91	477,580	21 14 4
1922-23	20,412	8,036	28,448	1,984,707	97	628,160	30 5 8
1923-24	20,733	8,971	29,704	2,004,020	97	521,730	25 3 4
1924-25	22,709	9,284	31,993	2,292,062	101	609,420	26 16 9
1925-26	23,425	7,860	31,285	2,486,020	106	742,650	31 14 1
1926-27	23,853	7,854	31,707	2,273,529	95	762,360	31 19 2
1927-28	26,056	7,301	33,357	2,604,983	100	765,240	29 7 5
1928-29	26,366	6,889	33,255	3,031,820	115	913,110	34 12 8

* At orchards.

The principal divisions for the cultivation of citrus fruits are as follow:—Metropolitan, 8,981 acres; Hunter and Manning, 9,485 acres; Riverina (which includes the Murrumbidgee Irrigation Area), 6,620 acres, and Central Tableland, 6,400 acres.

The number of orchards of 1 acre or more in extent in which citrus fruit was cultivated during the year 1928-29 was 5,368, and of these the average area was 6.2 acres.

The production of oranges and mandarins has attained such proportions that the growers are obliged to seek oversea markets. During 1928-29 the oversea export of citrus fruits from New South Wales was valued at £60,804, and in 1929-30 at £40,873. Practically the whole of this export was to New Zealand.

The system of packing and marketing inaugurated by the Central Citrus Association was described on page 602 of the Year Book for 1928-29.

Fruits other than Citrus.

The following table shows the area of orchards and fruit gardens, exclusive of citrus orchards, bananas, pineapples, and berry fruits, together with the total value of each season's yield, at intervals since 1900-01:—

Season.	Area under Cultivation (Fruits other than Citrus).			Value of Production.	
	Productive.	Not Bearing.	Total.	Total.	Average per Productive Acre.
	acres.	acres.	acres.	£	£ s. d.
1900-01	25,766	5,503	31,269	270,080	10 9 8
1910-11	20,498	6,748	27,246	271,930	13 5 4
1920-21	27,302	14,309	41,611	577,480	21 3 0
1921-22	27,838	14,031	41,869	547,930	19 13 8
1922-23	26,314	14,500	40,814	732,390	27 16 8
1923-24	27,220	13,525	40,745	645,820	23 14 6
1924-25	27,694	12,679	40,373	796,390	28 15 2
1925-26	29,621	11,818	41,439	857,380	28 18 11
1926-27	30,403	10,637	41,040	855,540	28 2 7
1927-28	32,492	9,038	41,530	957,550	29 9 6
1928-29	32,323	8,889	40,712	860,710	26 12 7

More than one-quarter of the area under fruits other than citrus is situated in the Central Tablelands, where the area occupied in this way is

10,450 acres; 8,504 acres are situated in the south-western slopes, and 7,786 acres in the Riverina, which includes the Murrumbidgee Irrigation Settlement.*

In contrast with the headway made in organising the marketing of citrus fruits little had been done until recently to improve the system of marketing other fruits. However, an efficient cool store on co-operative lines was established at Batlow some years ago to provide growers with storage chambers which will enable them to store apples and pears during periods of plenty for sale when supplies are scarce by reason of seasonal changes. In addition to the monetary gain, this system makes it possible for suppliers to guarantee continuity of supplies of fruit over a definite period, to make valuable trading connections, and to inaugurate sound marketing undertakings. Some details of the scheme were published on page 477 of the Year Book for 1924. During the year 1928 certain of the producers' organisations opened retail stores in the city. A cool store has since been established at Orange, and a building for a similar purpose has been constructed at Young.

Fruit Canning.

The Commonwealth Government paid bounty on certain kinds of fruit canned in 1923-24, and on such fruit exported on or before 28th February, 1925. A sum of £4,594 was paid in 1925-26 on fruit canned in New South Wales, and a further sum of £3,102 in 1927-28. The export of canned fruit is supervised by the Canned Fruit Control Board constituted under federal legislation.

The following statement shows the quantity and value of canned fruit produced in factories in New South Wales during each of the past six years:—

Year.	Fruit Preserved.	
	Quantity.	Value at Cannery.
	lb.	£
1923-24 ...	10,521,701	242,255
1924-25 ...	17,019,569	408,101
1925-26 ...	11,325,850	264,794
1926-27 ...	8,261,091	182,436
1927-28 ...	13,922,386	242,537
1928-29 ...	14,213,747	258,037

Dried Fruits.

The quantity of dried fruit produced in New South Wales in 1928-29 was 100,841 cwt. The bulk of the fruit treated in this way consisted of grapes of which details are shown on page 570. The production of dried prunes increased from 1,890 cwt. in 1926-27 to 17,633 cwt. in 1928-29, and further expansion may be anticipated as the young trees reach full bearing capacity. The total production of dried fruits in each of the last five seasons is shown below:—

Dried Fruit.		1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
		cwt.	cwt.	cwt.	cwt.	cwt.
Apricots ...	...	893	775	4,072	4,577	9,097
Grapes ...	...	25,133	29,301	50,170	35,369	69,842
Peaches ...	...	1,628	1,334	655	4,782	3,461
Pears ...	...	412	303	165	630	355
Prunes ...	...	3,321	3,111	1,890	12,657	17,633
Other ...	...	206	65	39	388	453
Total ...	...	31,593	34,889	56,991	58,403	100,841

* See pages 579 and 580.

Vegetables.

As agricultural and pastoral statistics are collected only in respect of holdings of one acre or more in extent, they do not provide a complete census of vegetable growing. Nevertheless the information obtained may be considered to provide reasonably complete particulars of operations conducted on a commercial basis.

A considerable proportion of the vegetables produced on holdings of 1 acre and over are grown in market gardens, and data as to individual crops are not available in respect of these. In 1928-29 market garden produce was grown on 1,459 holdings, in areas of 1 acre or more, the total area being 7,709 acres; and the value of production was £689,438. The area and production of individual crops, exclusive of areas cultivated in market gardens or on holdings less than 1 acre in extent, were as follows:—

Vegetables.	1927-28.		1928-29.	
	Area of Crop.	Production.	Area of Crop.	Production.
Potatoes—	acres.	tons.	Acres.	tons.
Early (Summer) ...	5,455	13,928	4,468	7,458
Late (Winter) ...	16,123	33,469	10,362	18,881
Sweet ...	775	3,864	689	3,222
Onions ...	155	569	131	432
Turnips ...	693	1,906	775	1,589
Other Root Crops ...	121	702	196	524
Pumpkins and Melons ...	3,796	13,915	2,345	5,791
Tomatoes ...	1,990	Half-cases. 311,849 £	1,896	Half-cases. 273,118 £
Peas ...	6,026	102,760	6,803	118,250
Beans ...	872	25,360	996	29,550
Cabbages ...	374	18,920	501	21,340
Cauliflowers ...	256	11,260	240	7,170
Other ...	57	2,370	82	3,020

MISCELLANEOUS CROPS.

Particulars of miscellaneous crops of the State are shown below:—

Crop.	Average of 5 years ending 30th June, 1928.			Year ended 30th June, 1929.		
	Area.	Production.	Yield per acre.	Area.	Production.	Yield per acre.
Hay—	acres.	tons.	tons.	acres.	tons.	tons.
Wheaten ...	443,015	484,159	1.09	375,270	390,255	1.04
Oaten ...	229,449	290,143	1.26	214,137	242,740	1.13
Lucerne ...	95,021	189,795	2.00	94,275	159,158	1.69
Other ...	1,343	1,669	1.24	1,048	1,102	1.05
Green Fodder ...	428,164	£816,503	*	264,699	£811,930	*
Rye (Grain) ...	1,510	24,622	bushels. 16.3	3,005	53,700	bushels. 17.9
Broom Millet—						
Grain ...	2,760	14,846	5.4	2,018	8,100	4.0
Fibre ...		cwt. 14,056	cwt. 5.1		cwt. 6,623	cwt. 3.3
Root Crops—		tons.	tons.		tons.	tons.
Potatoes ...	22,306	52,435	2.4	14,830	26,339	1.8
Other ...	1,471	5,576	3.8	1,791	5,767	3.2
Miscellaneous Crops—		cwt.	cwt.		cwt.	cwt.
Tobacco (Dried Leaf)	1,065	7,607	7.1	762	5,194	6.8
Sugar Cane—		tons.	tons.		tons.	tons.
Crushed ...	8,373	219,453	26.2	6,783	147,414	21.7
Stand-over ...	9,915	...	...	9,055	...	...

* Comparative averages not available.

Details respecting each of these crops are shown in the "Statistical Register of New South Wales."

The greater part of the area cultivated for hay is sown with wheat, but cultivation for oaten hay is also very extensive. Lucerne is more or less a permanent crop, and in recent years the area devoted to it has increased although the area decreased in 1928-29. The area of land cultivated expressly for green fodder is not known. The area shown above includes areas which failed to mature for grain or hay and were used as green fodder for stock.

Only about 10 per cent. of the tobacco and about 20 per cent. of the sugar consumed annually in New South Wales are grown within the State.

SILAGE.

New South Wales is liable at intervals of fairly regular recurrence to long periods of dry weather. It consequently lacks a permanent supply of natural fodder, and the necessity arises for conserving the abundant growth of herbage of good seasons, in the form of silage, for use when natural pastures are exhausted. To facilitate such conservation the Department of Agriculture offers free advice concerning material and method of constructing silos. Farmers may sink pits for the same purpose at small expense.

The possession of stocks of silage is highly advantageous to the prosecution of dairy-farming in the districts of the coast, where the climatic conditions are unfavorable to the growth of winter fodder.

The quantity of silage made in the State in 1928-29 was 27,177 tons, made on 350 farms, and valued at £55,740; 10,424 tons were made in coastal districts, and 12,649 tons on the Western Slopes. The quantity varies considerably from year to year.

Considering the liability of the State to periods of severe drought, the small efforts made to conserve the fodder of abundant seasons are disappointing. As a means of conserving fodder, the making of silage is of great potential value. Schemes of fodder conservation as insurance against drought have been considered from time to time, but no project has yet been initiated.

PLANT DISEASES ACT, 1924.

A brief description of this Act was published at page 606 of the Year Book for 1928-29.

Fruit Census, 1923.

In 1923 a special census was taken to ascertain the number of trees of each variety of each kind of fruit planted in New South Wales, in order to facilitate consideration of the problem of marketing.

The results were briefly summarised on page 504 of the Official Year Book for 1923, and were published in full in the *Agricultural Gazette* of February, 1925.

Registration of Farm Produce Agents.

A summary of operations under the Farm Produce Agents Act was published on page 607 of the Year Book for 1928-29.

WATER CONSERVATION AND IRRIGATION.

A brief outline of the problem of water conservation and irrigation and of the policy adopted in New South Wales was published in the Year Book for 1928-29 at page 608.

The Murrumbidgee, Hay, Curlwaa and Coomealla Irrigation Areas were described on pages 609 to 611 of the Year Book for 1928-29 and details of subsequent developments are contained in the Annual Reports of the Water Conservation and Irrigation Commission and in the Report of the Auditor-General.

A summary of the expansion of the Murrumbidgee Irrigation Scheme is provided below:—

Year ended 30th June.	Water Distributed.	Area Watered.	Value of Rural Production *	Revenue derived.			
				Water Rates and Charges	Land Lease Rentals	Interest on advances	Other Revenue.
	acre feet	acres.	£	£	£	£	£
1924	66,433	56,076	600,000	30,957	74,276	111,600	2,602
1925	68,785	58,698	720,000	34,778	74,985	125,452	1,821
1926	81,949	57,810	800,000	38,707	73,287	120,086	650
1927	104,158	59,795	884,000	45,976	73,994	118,794	1,667
1928	139,441	64,938	841,000	54,521	72,355	101,382	2,476
1929	214,170	75,254	970,000	69,227	74,670	83,211	806
1930	301,545	97,612	†	101,194	82,999	77,472	2,367

* Excluding value added in factories.

† Not available.

The capital expenditure connected with the irrigation areas was £9,242,951 as at 30th June, 1929, of which £9,035,960 was expended on Loan Account. This sum was reduced by £1,017,626 written off for various reasons, including £954,796 on account of Soldier Settlement.

PRODUCTION ON IRRIGATION SETTLEMENTS.

Comparative statistics of the irrigation settlements established and controlled by the State in New South Wales are shown in the following statement; the particulars for 1910-11 relate to the Hay and Curlwaa settlements

only, as farming operations on the Murrumbidgee area did not commence until the season 1912-13:—

Particulars.	1910-11.	1920-21.	1923-29.			
			Murrumbidgee.	Hay.	Curlwaa and Coomealla.	Total.
Cultivated Holdings No.	86	1,190	1,392	2	196	1,590
Area under—						
All Crops Acres	862	31,065	78,315	3	2,486	80,804
Grain "	2	2,860	49,348	...	...	49,348
Hay and Green Food "	399	16,085	9,374	...	59	9,433
Grape Vines—						
Bearing "	186	1,253	4,930	...	744	5,674
Not yet Bearing "	74	1,896	893	...	654	1,547
Orchards—						
Bearing "	58	4,154	9,873	3	563	10,439
Not yet Bearing "	139	4,414	3,075	...	467	3,542
Live Stock—						
Horses No.	239	5,264	5,945	125	280	6,350
Cattle—						
Dairy "	484	4,007	*1,934	*280	*7	*2,221
Other "	530	5,463	2,831	119	62	3,012
Sheep "	703	16,927	64,630	713	211	65,554
Swine "	134	2,564	1,613	29	6	1,648
Production—						
Wine gal.	...	64,000	1,064,369	...	...	1,064,369
Sultanas cwt.	...	2,923	26,448	...	12,835	39,283
Raisins and Lexias "	1,009	967	318	...	2,410	2,728
Currants "	...	2,188	2,993	...	2,781	6,774
Oranges—						
Washington Navel ... bush.	...	49,328	197,339	30	11,382	208,751
Valencia "	273	21,323	148,864	...	4,809	153,673
All other "	...	3,455	14,869	150	1,221	16,240
Lemons "	...	11,062	48,540	30	2,057	50,627
Peaches—						
Dessert and Drying "	...	40,433	95,815	200	22,543	118,558
Canning "	2,467	172,361	153,975	...	...	153,975
Nectarines "	...	3,751	3,510	...	1,465	4,975
Apricots "	2,905	58,136	109,543	...	17,631	127,174
Prunes "	...	10,829	38,903	...	1,071	39,974
Butter lb.	5,100	40,761	308,666	32,457	530	341,653
Bacon and Ham "	820	11,413	249,795	...	...	249,795
Grain—Wheat bush.	...	24,648	267,960	...	...	267,960
Rice ... .. "	...	...	1,307,520	...	...	1,307,520
Oats "	...	9,207	51,954	...	...	51,954
Other "	...	9,171	9,078	...	...	9,078

* Cows in registered dairies only.

The area devoted to fruit-growing increased steadily until 1929, when there was a decrease in the area not yet bearing. One-quarter of the area planted with fruit trees has not yet reached the stage of production.

Oranges, peaches, apricots, and prunes are the principal kinds of fruit produced. The yields of these may be expected to increase rapidly as the young trees become increasingly productive.

The following statement shows the number of fruit trees of the principal varieties, distinguishing the productive from those not yet bearing:—

Fruit trees.	1910-11.		1920-21.		1928-29.	
	Pro- ductive.	Not yet Bearing.	Pro- ductive.	Not yet Bearing.	Pro- ductive.	Not yet Bearing.
Orange—						
Seville	202	3,606	1,150	6,283	1,851	1,096
Washington Navel			60,810	70,314	212,209	69,445
Valencia			27,425	40,028	113,488	77,375
All other	119	136	3,134	5,443	11,796	3,607
Lemon ... ..	...	...	13,766	17,881	28,625	4,382
Mandarin ... ..	...	...	1,888	3,571	12,465	9,601
Peach—						
Dessert and Drying	1,752	4,503	31,022	29,664	55,802	9,443
Canning			118,811	73,804	147,153	44,881
Nectarine	2,033	2,969	3,739	4,020	4,948	332
Apricot			51,624	37,901	116,579	7,503
Prune			14,832	62,353	106,864	9,100
Plum	98	282	8,475	6,812	9,201	527
Pear—						
Williams	165	1,096	10,908	15,596	16,310	2,294
Other			5,663	3,457	8,752	683
Apple	400	718	3,452	10,240	41,184	62,585
Fig	201	38	1,428	2,995	3,721	6,725
Almond ... ..	...	140	6,948	8,631	15,440	5,773

The growing of oranges is the most extensive activity, and large quantities of peaches are grown especially for canning, also apricots, prunes, pears, and apples. However, there was an appreciable decline in the growing of canning peaches, plums, pears and almonds in 1929.

Crops are cultivated under irrigation in various localities other than irrigation settlements established by the Government. A summary of all crops which were watered artificially—including those to which the foregoing tables relate—indicates that the total area irrigated in 1928-29 was 123,129 acres. The principal crops were as follows:—Wheat, 32,983 acres; oats, 18,204 acres; lucerne, 18,428 acres; green food, 5,624 acres; grapes, 8,251 acres; other fruit, 15,416 acres; market gardens, 6,362 acres; and rice, 14,027 acres.

IRRIGATION PROJECTS.

An account of the irrigation projects connected with the Murray, Lachlan, Macquarie and Namoi rivers and the Warragamba scheme was published on pages 613 to 615 of the Year Book for 1928-29. Later particulars are contained in the annual reports of the River Murray Commission and the Water Conservation and Irrigation Commission of New South Wales.

WATERWORKS.

Provision is made by the Water Act, 1912, as amended in 1924, that all waterworks constructed by private individuals in connection with natural sources of water must be approved and licensed by the State. During the year ended 30th June, 1929, new licenses numbered 176 and 38 were allowed to lapse, so that at 30th June, 1929, there were in force 2,339 licenses for pumps, dams, and other works, small fees being charged in each case. Usually the licenses are issued for a period of five years.

Water Trusts and Bore Trusts.

The Water Act, 1912, empowers the State to construct works to provide supplies of water for irrigation, stock, or domestic purposes, and for drainage. The capital cost of such works is repaid by beneficiaries, with interest in instalments spread over a period of years. The works are administered by trustees appointed from among the beneficiaries under the Act, except in the case of trusts in the Western Division, when the Western Land Board is appointed as trustee.

For the supply of water under these conditions works have been carried out by the State, and local trusts have been constituted in connection with (a) 12 artesian wells, which cost £22,758 and embrace an area of 324,947 acres, with 108 miles of drains; 77 artesian bores, which cost £243,256 and embrace 4,607,177 acres, with 3,021 miles of drains; (b) 14 schemes of improvements to natural off-takes of effluent channels, for the purpose of diverting supplies from the main rivers, the trust districts embracing 2,001,675 acres at a cost of £40,186, and 3 similar schemes relating to 1,241,640 acres, where the works are incomplete, the estimated cost being £170,800.

The bores, which are controlled by trusts, are constructed by the Government, to whom the cost is repaid by the residents in instalments extending over twenty-eight years. The rates levied by the trusts in their districts range from 0.06d. to 6d. per acre, the average rate being 2.105d. per acre. These rates are applied to repaying Crown instalments and defraying maintenance and administrative costs.

Private Irrigation Schemes and Trusts.

The Water (Amendment) Act, 1924, enables the Water Conservation and Irrigation Commission to exercise control over the subdivision of private holdings for sale in small areas as irrigated blocks and for the taking over of private irrigation schemes. Trusts have been constituted in respect of 3,547,300 acres of land embracing the supply of water for stock, domestic purposes and the irrigation of fodder crops, exclusive of bore-water trusts and artesian well districts mentioned below. The greater part of the works of these trusts were constructed by the State, the estimated cost (about £104,000) being repaid over a period of years.

Artesian Bores.

That portion of the great Australian artesian basin which extends into New South Wales covers approximately 70,000 square miles, and is situated in the northern and north-western hinterland of the State.

The first artesian bore was sunk in 1879 on the Kallara pastoral holding, between Bourke and Wilcannia, and the first Government bore was completed in 1884 at Goonery, on the Bourke-Wanaaring road.

The following statement shows the extent of the work which has been successfully effected by the Government, and by private owners, up to the 30th June, 1930:—

Bores.	Flowing.	Pumping.	Total.	Total Depth.
				feet.
For Public Watering-places, Trust Bores, etc. ...	130	45	175	367,937
For Country Towns Water Supply	3	1	4	6,533
For Improvement Leases	19	7	26	38,621
Total, Government Bores ..	152	53	205	413,091
Private Bores... ..	234	136	370	527,393

The average depth of Government bores is 2,102 feet, and of private bores 1,425 feet, and they range from 89 to 4,338 feet.

The deepest wells in New South Wales are in the county of Stapylton, one at Boronga having a depth of 4,338 feet and an outflow at present of 809,251 gallons; another at Dolgelly has a depth of 4,086 feet, and a discharge of 437,318 gallons per day. The largest outflow at the present time is at the Careunga No. 2 bore, in the county of Stapylton, which yields 1,223,400 gallons a day, and has a depth of 4,014 feet.

In all 627 bores have been sunk 386 are flowing, and give an approximate aggregate discharge of 75,797,177 gallons per day; 189 bores give a pumping supply, the balance of 52 being failures. The total depth bored is 1,003,583 feet.

The flow from 93 bores is utilised for supplying water for stock on holdings served in connection with bore-water trusts and artesian well districts under the Water Act, 1912. The total flow from these bores amounts to 32,532,431 gallons per day, watering districts of an area of 4,947,944 acres by means of 3,141 miles of distributing channels. The average rating by the bore trusts is 2.25d. per acre, including the cost of maintenance and administration.

In the majority of cases the remaining bores are used by pastoralists for stock-watering purposes only, but in a few instances the supply is utilised in connection with country towns.

The watering of the north-western country by means of bore-water has largely increased the carrying capacity of the land; and, what is perhaps of greater importance, it has made practicable some pastoral settlement on small holdings in areas previously utilised by companies holding extensive areas.

It has been determined that the multiplicity of bores is the chief factor governing the annual decrease in bore-flows, also that the limitation of the discharge of water from a bore will prolong its existence as an efficient flow; action has been taken, therefore, to prevent any waste by the control of the bore-flow, and by its adjustment to actual needs.

Shallow Boring.

Arrangements were made by the Government in 1912 to assist settlers by sinking shallow bores. The scheme is administered by the Water Conservation and Irrigation Commission. The settler selects the site, and the Commission supplies the plant, materials and labour, and the cost is repaid by the settler on terms. Operations were commenced with one plant only, but the number has been increased gradually and 36 are now at work. During the year 1929-30 the Commission received 308 applications for the use of the plant, and 245 bores were completed.

Up to the 30th June, 1930, the number of bores sunk was 2,917, of which 523 were failures, the total charges for sinking being approximately £652,027. The total depth bored was 782,932 feet, the greatest depth of any bore being 1,307 feet. During the year £67,660 were expended from loan moneys on shallow boring operations, and £39,001 were repaid by settlers to the Government. The operations of the year resulted in a trading loss of £9,379.

In 1925 boring by private plants was sanctioned by the Government, who arranged to advance the necessary money to settlers for approved schemes, such advances being repayable by instalments with interest. Ninety-one bores have been sunk under this scheme, the total depth being 46,108 feet at an average cost of from 15s. 5d. to 49s. 6d. per foot.

In addition to the work conducted under the shallow boring regulations, 22 bores have been sunk in the Pilliga Scrub and on Crown lands for the Lands Department and Forestry Commission.

Growth of Artesian and Shallow Boring.

The rapid development which has occurred in utilising the underground water resources of the State in recent years is evident from the fact that the number of successful bores of all kinds increased from 458 in 1911 to 2,855 at 30th June, 1930.

PASTORAL INDUSTRY.

In New South Wales the pastoral industry has always been the greatest source of primary production, contributing more than 40 per cent. of the total value during the last ten years. In the year ended 30th June, 1929, the area of holdings in the State used for grazing was in excess of 159,000,000 acres.

LIVE STOCK.

New South Wales does not possess any indigenous animals which would give rise to a large industry, and of those introduced, sheep only have developed into a prolific source of wealth. Indeed, the development of the sheep industries has been so remarkable that it has, in a sense, precluded the rise of other pastoral activities. Horses have been bred principally for their utility in various industries and for racing purposes, and there is a small oversea trade in remounts, but, generally speaking, horse-breeding is declining. For many years cattle were produced only to supply local requirements of meat and dairy produce, but later an export trade was established, and considerable expansion took place in the number of cattle depastured. Pigs are bred principally as a by-product of the dairying industry, and the number does not fully meet local requirements.

The following table shows the number of the principal kinds of live stock in New South Wales at the end of each decennial period, from 1861 to 1921, and annually thereafter:—

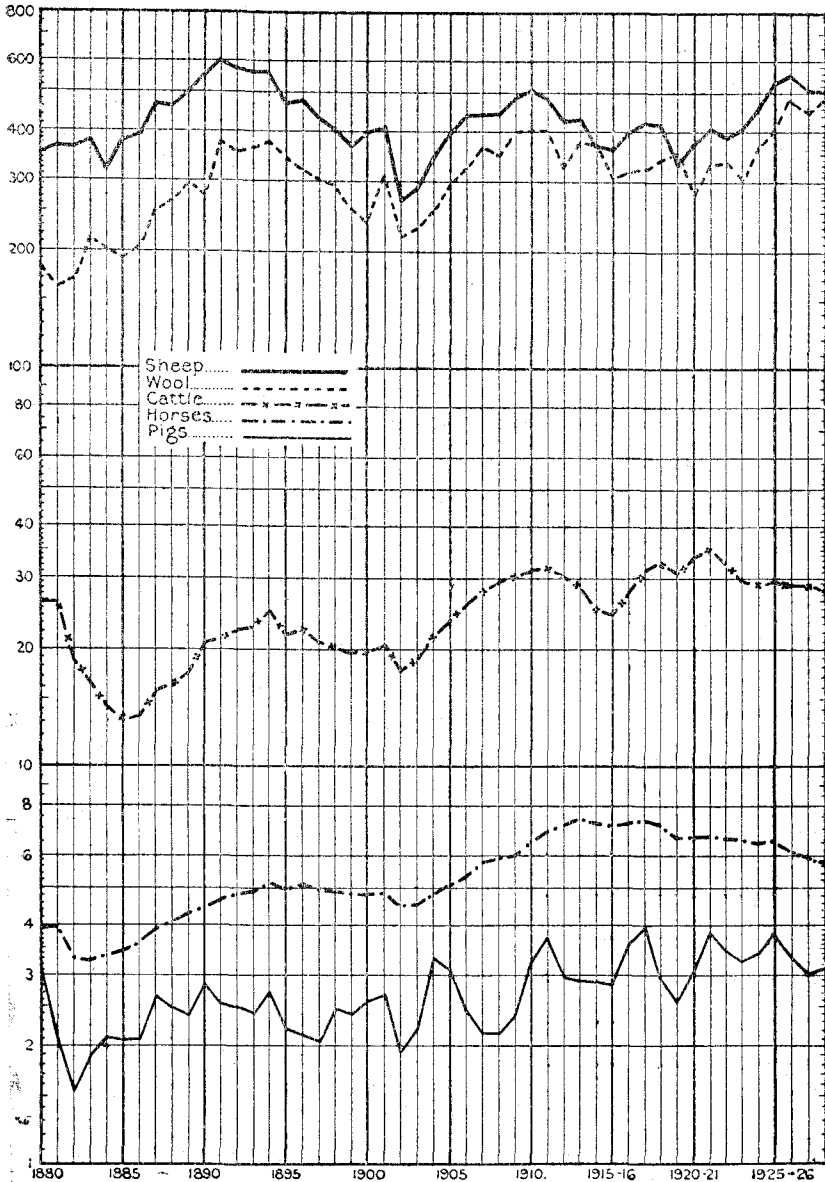
As at 30th June.	Horses.	Cattle.	Sheep.	Pigs.
1861*	233,220	2,271,923	5,615,054	146,091
1871*	304,100	2,014,888	16,278,697	213,193
1881*	393,577	2,597,348	36,591,946	213,916
1891*	469,647	2,128,838	61,831,416	253,189
1901*	486,716	2,047,454	41,857,099	265,730
1911*	682,004	3,194,236	48,830,000	371,093
1921	663,178	3,375,267	37,753,000	306,253
1922	669,800	3,546,530	41,070,000	383,669
1923	660,031	3,251,180	38,760,000	340,853
1924	658,372	2,938,522	41,440,000	323,196
1925	647,503	2,876,254	47,100,000	339,669
1926	651,035	2,937,130	53,860,000	382,674
1927	623,392	2,818,653	55,930,000	332,921
1928	598,377	2,848,654	50,510,000	301,819
1929	567,371	2,784,615	50,185,000	311,605

* At 31st December.

Particulars of other live stock are shown on a later page.

LIVE STOCK AND PRODUCTION OF WOOL, 1880 to 1928-29.

Ratio Graph.



The numbers at the side of the graph represent 1,000,000 lb. of wool (as in grease) produced during year; and 100,000 sheep, cattle, horses, and pigs at end of year.

The diagram is a ratio graph. The vertical scale is logarithmic, and each curve rises and falls according to the rate of increase or decrease. Actual data are shown by means of the numbers at the side of the graph.

To obtain an idea of the varying extent of pastoral pursuits in the State as represented by the number of live stock grazed it is necessary to express the various species in common terms. This cannot be done with exactitude, but, adopting the arbitrary equivalent of ten sheep to each head of large stock, the following comparison is obtained:—

Year.	Equivalent in Sheep of Live Stock grazed.	Year.	Equivalent in Sheep of Live Stock grazed.
1861	30,666,000	1911	87,662,000
1871	39,469,000	1921*	78,134,000
1881	66,551,000	1927*	90,350,000
1891	87,816,000	1928*	84,980,000
1901	67,199,000	1929*	83,700,000

* At 30th June, previous years at 31st December.

The number of live stock grazed declined on the whole by about 11 per cent. between 1891 and 1920. The decline was attributable to a decrease in the number of sheep, but under favourable conditions the number of live stock increased, until in 1927 it was in excess of the total in 1891. The sheep total was not maintained in 1928, and the equivalent receded by nearly 6 per cent. This was followed by a slight decrease in the number of sheep, cattle and horses in 1929. It should be noted that careful breeding has led to marked improvement in the type of sheep depastured, and the average productive capacity of present-day sheep is very much greater than that of sheep depastured in 1891.

Comparison—Live Stock in the Commonwealth.

A comparison of the number of horses, cattle, sheep, and pigs in New South Wales and in the other States of the Commonwealth is shown in the following table. The figures are as at 31st December, 1929, excepting where otherwise specified:—

State.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	567,371 (a)	2,784,615 (a)	50,740,000	311,605 (a)
Victoria	393,015	1,335,242	17,427,203	265,978
Queensland	500,104	5,208,588	20,324,303	236,037
South Australia	189,054	204,516	6,186,252	74,906
Western Australia	159,479	836,614	9,556,823	64,522
Tasmania (b)	34,908	208,812	*2,000,000	48,304
Northern Territory (b)	37,452	768,751	*7,500	407
Federal Capital Territory (a)	924 (a)	5,269 (a)	*232,448	51 (a)
Total, Australia	1,882,307	11,352,407	106,474,529	1,001,810

(a) As at 30th June, 1929.

(b) As at 31st December, 1928.

* Estimate.

In New South Wales there are more sheep, horses, and pigs than in any other State in the Commonwealth, but Queensland has more cattle.

Distribution of Live Stock.

In order to indicate the distribution of flocks and herds in New South Wales the following table has been prepared. It shows the number of live stock, and the number per square mile, in each Division at intervals since 1891.

Division.	Number of Live Stock (000 omitted).					Number per square mile.				
	1891.	1901.	1911.	1921.†	1929.‡	1891.	1901.	1911.	1921.†	1929.‡
SHEEP—										
Coastal Belt ...	1,483	1,097	1,559	1,048	1,331	42.5	31.4	44.9	30.2	38.3
Tableland ...	7,882	8,859	9,785	7,524	10,930	195.3	219.5	235.2	181.8	270.1
Western Slopes ...	10,869	11,672	12,167	9,743	16,711	286.8	308.0	275.2	221.0	379.7
C'I Plains & Riverina ...	25,194	14,706	17,433	14,370	15,851	351.8	205.4	269.4	222.1	245.0
Western Division ...	16,403	5,523	7,926	5,065	5,362	130.6	44.0	63.2	40.4	42.7
Whole State ...	61,831	41,857	48,830	37,750	50,185	199.2	134.9	157.3	121.6	162.2
CATTLE, DAIRYING—										
Coastal Belt ...	197	284	653	674	856	5.6	8.1	18.7	19.3	24.6
Tableland ...	67	70	107	73	37	1.7	1.7	2.7	1.8	0.9
Western Slopes ...	37	40	78	59	40	1.0	1.1	2.1	1.6	0.9
C'I Plains & Riverina ...	35	20	43	36	7	0.5	0.3	0.7	0.5	0.1
Western Division ...	7	4	9	2	1	0.1	0.0	0.1	0.0	0.0
Whole State ...	343*	418*	895	844	941†	1.1	1.3	2.9	2.7	3.0
CATTLE, OTHER—										
Coastal Belt ...	640	667	915	1,009	782	18.3	19.1	26.2	28.6	22.6
Tableland ...	465	501	550	550	420	11.5	12.4	13.6	14.4	10.4
Western Slopes ...	247	306	422	441	383	6.5	8.1	11.1	11.6	8.7
C'I Plains & Riverina ...	339	115	302	369	202	4.7	1.6	4.2	5.2	3.1
Western Division ...	94	41	110	132	56	0.7	0.3	0.9	1.1	0.4
Whole State ...	1,785	1,630	2,299	2,531	1,843	5.8	5.3	7.4	8.2	6.0
HORSES—										
Coastal Belt ...	163	161	207	203	157	4.7	4.6	5.9	5.8	4.7
Tableland ...	92	112	127	112	93	2.3	2.8	3.1	2.8	2.3
Western Slopes ...	76	111	180	168	176	2.0	2.9	4.8	4.4	4.0
C'I Plains & Riverina ...	95	78	140	152	119	1.3	1.1	2.0	2.1	1.8
Western Division ...	44	25	35	28	22	0.4	0.2	0.3	0.2	0.2
Whole State ...	470	487	639	663	567	1.5	1.6	2.2	2.1	1.8

* Cows in milk only; dry cows and springing heifers are included in the total of Other Cattle.

† Cows in registered dairies only. ‡ At 30th June.

Sheep are depastured principally in the hinterland of the State, and are relatively most numerous in the Western Slopes Division. Dairying cattle and, in fact, all cattle, are more numerous in the coastal areas. Until 1922, horses were most numerous in the Coastal Division; since that year the Western Slopes Division contained the greatest number.

The divisional totals as stated for 1929 are not altogether comparable with those shown for the years 1891 to 1921, as they have been compiled in shire areas, and not in counties as formerly. The change in geographical basis

involved considerable alteration in the areas comprising divisions of the Western Slopes and the Central Plains, where large numbers of stock are depastured.

The figures for the years 1891 to 1921, however, afford interesting information as to the localities most susceptible to losses of sheep through drought. The greatest decline between these years was in the Central Plains and Riverina, where the numbers fell from 352 to 222 per square mile, and the greatest relative decline was in the Western Division, where the falling-off was from 131 to 40 per square mile.

SHEEP.

Investigations carried out in 1926 showed that the numbers of sheep in the State as recorded in landholders' returns had been considerably understated, and, after exhaustive inquiries, it was found necessary to revise the recorded totals back to the year 1908.

The following table shows the number of sheep as recorded in landholders' returns for various years between 1861 and 1906 in comparison with the adjusted totals since 1911. The figures are approximate, but they show the vicissitudes of sheep-breeding in New South Wales:—

Year.	Sheep.	Average Annual Rate of Increase.	Year.	Sheep.	Average Annual Rate of Increase.	Year.	Sheep.	Average Annual Rate of Increase.
			*			*		
1861	5,615,000	...	1891	61,831,000	(+) 9.6	1921	37,750,000	(+) 3.5
1866	11,562,000	(+) 15.5	1896	48,318,000	(-) 4.8	1926	53,860,000	(+) 42.7
1871	16,278,000	(+) 7.1	1901	41,857,000	(-) 2.8	1927	55,930,000	(+) 3.8
1876	25,269,000	(+) 9.2	1906	44,132,000	(+) 1.1	1928†	50,510,000	(-) 9.7
1881	36,591,000	(+) 7.7	1911	48,830,000	(+) 2.1	1929†	50,185,000	(-) 0.6
1886	39,169,000	(+) 1.4	1916	36,490,000	(-) 1.1			

* At 30th June each year since 1916.

(-) Denotes decrease.

† Excluding Federal Capital Territory (approx. 230,000).

At 31st December, 1929, the number of sheep in the State was 50,740,000. The number was greatest in 1891, and thereafter lowest at the end of 1902 by reason of drought. The main cause of the reduction in the number of sheep between 1891 and 1921 seems to have been a remarkable deterioration of seasons, due to diminished rainfall. This may be illustrated briefly by stating that the weighted average annual rainfall of the State was about $3\frac{1}{2}$ inches less in the twenty years which followed 1894 than in the preceding quarter of a century, and that this decline was proportionally heaviest in the plain districts of low average rainfall, which in 1891 carried two-thirds of the sheep depastured in the State. The rabbit pest, too, has aggravated the effects of dry weather through destruction of natural herbage, while the growth of the agricultural industry has caused land to be diverted from the purpose of sheep-breeding.

The sudden transition from very good to very bad seasons, which occurred in the early nineties, wrought such havoc amongst the flocks depastured on the immense western plains that by 1901 the returns showed a decrease from 16,400,000 to 5,500,000 sheep in the Western Division, and from 25,200,000 to 14,700,000 in the Central Plains and Riverina Division, and in 1902 these numbers were further reduced by 1,900,000 and 7,600,000 respectively. It is noteworthy that in 1928 there were many more sheep in the Tablelands and Western Slopes Divisions than in 1891, though considerably less in the Plains, Riverina, and Western Divisions (see table on previous page).

Estimates based on returns supplied by landholders show the following approximate distribution of the flocks according to sex, also the number of lambs:—

As at 30th June.	Rams.	Ewes.	Wethers.	Lambs (under 1 year).	Total.
1924	550,000	21,670,000	11,060,000	8,160,000	41,440,000
1925	580,000	23,040,000	12,340,000	11,140,000	47,100,000
1926	670,000	25,920,000	15,360,000	11,910,000	53,860,000
1927	740,000	27,770,000	15,330,000	12,090,000	55,930,000
1928	675,000	26,262,000	15,200,000	8,373,000	50,510,000
1929	622,000	25,076,000	13,832,000	10,655,000	50,185,000

The following table, compiled from the best data available, shows as nearly as may be the extent of each of the principal factors in the rise and fall in the number of sheep since 1919.

Year.	Lambs Marked.	Sheep and Lambs Slaughtered.	Excess of Imports (+) or Exports (—)	Estimated number of Deaths* (Balance).	Net Increase (+) or Decrease (—)	Sheep at 30th June.
Thousands (000) omitted.						
1918-19	8,780	4,280	(—) 1,040	3,810	(—) 350	42,176
1919-20	5,230	5,540	(—) 1,380	7,330	(—) 9,020	33,156
1920-21	8,750	3,850	(+) 1,980	2,280	(+) 4,600	37,756
1921-22	10,860	5,230	(+) 150	2,460	(+) 3,320	41,070
1922-23	8,180	5,670	(—) 2,170	2,650	(—) 2,310	38,760
1923-24	9,080	3,620	(—) 140	2,640	(+) 2,680	41,440
1924-25	12,000	3,390	(—) 870	2,080	(+) 5,660	47,106
1925-26	13,100	4,250	(—) 610	1,480	(+) 6,760	53,860
1926-27	12,630	5,620	(—) 2,640	2,300	(+) 2,070	55,930
1927-28	9,220	5,010	(—) 1,990	7,640	(—) 5,420	50,510
1929†	12,560	5,380	(—) 2,410	4,540	(+) 230	50,740†

* The figures in this column represent a balance and are only rough approximations. † Year ended 31st December; previous years ended 30th June. ‡ Excluding 230,000 in Federal Capital Territory.

While the returns as to slaughter and border movement are considered accurate, the numbers of lambs marked and of sheep prior to 1929 are estimates based on landholders' returns and other data. The estimated number of deaths is a balancing column and its accuracy is affected by the degree of approximation present in the other items in the table. The numbers shown under this heading, however, represent roughly the extent of the annual losses from drought, disease, pest, and natural causes generally. The degree of approximation in the year 1929 is very slight and the figures shown are virtually actual records.

The effect of adverse seasons on the sheep flocks is apparent in four directions, viz., losses by death attributable mainly to lack of fodder and water, increase in the slaughtering of fat stock, decrease in lambing, and increased export to other States.

A brief review of the rise of sheep breeding in New South Wales was published on page 771 of the Year Book for 1921, but this is modified by the remarks made on a previous page regarding the totals recorded in earlier years.

Interstate Movement of Sheep.

Apart from the seasonal movement of stock to and from agistment in other States, there is a regular export of sheep from New South Wales to Victoria. During the past five years, 11,301,000 sheep have been moved from New South Wales to Victoria, and 3,240,000 from Victoria to New South Wales, leaving an excess of exports to Victoria of 8,056,000. In the same period, 3,173,000 sheep have been imported from Queensland to New South Wales, and 3,624,000 have been exported from New South Wales to Queensland, leaving an excess of exports of 451,000 from New South Wales to Queensland. The excess of exports to other destinations during the same period was 598,000, chiefly to South Australia, and the total excess of exports of live sheep from New South Wales for the period 9,105,000, consisting mainly of sheep sent to market in Victoria from the southern districts of New South Wales.

The following table shows the movement of sheep from and to New South Wales, so far as is recorded, in recent seasons:—

Year.	Sheep from New South Wales.				Sheep to New South Wales.				Excess of Imports (+) for of Exports (—).
	To Victoria.	To Queens-land.	To South Australia and by Sea.	Total.	From Victoria.	From Queens-land.	From South Australia and by Sea.	Total.	
	000	000	000	000	000	000	000	000	000
1919-20	2,289	335	218	2,842	689	750	26	1,465	(—) 1,377
1920-21	850	97	125	1,072	936	2,050	70	3,056	(+) 1,984
1921-22	1,383	245	108	1,736	541	1,306	42	1,889	(+) 153
1922-23	2,008	344	386	2,738	225	313	33	571	(—) 2,167
1923-24	1,281	208	76	1,565	440	947	37	1,424	(—) 141
1924-25	1,558	268	92	1,858	393	586	7	986	(—) 872
1925-26	1,540	321	83	1,944	561	759	11	1,331	(—) 610
1926-27	2,330	960	300	3,590	114	634	6	954	(—) 2,636
1927-28	2,507	989	122	3,618	938	587	103	1,628	(—) 1,990
1928-29	2,780	723	173	3,676	717	532	33	1,282	(—) 1,794
1929-30	2,744	631	112	3,487	715	661	36	1,412	(—) 2,075

Lambing.

The greater part of the lambing of the State takes place during the autumn and winter months, although considerable proportions of ewes, varying according to the nature of the season, are reserved for spring and early summer lambing. It is possible to breed from ewes twice per year, but it is not considered good policy and is rarely practised, except, perhaps, after severe losses. Seasonal changes play a large part in determining the proportion of ewes mated and of resultant lambs, and thus cause wide variations in the natural increase. In 1925-26, 19,941,000 ewes were mated and produced 13,100,000 lambs, equal to 65.7 per cent.; in 1926-27, 18,897,000 ewes mated produced 12,630,000 lambs, equal to 66.8 per cent.; and in 1927-28, 15,651,800 ewes were mated, and produced 9,218,793 lambs, equal to 58.9 per cent.

In view of the fact that the lambing season extends almost continuously from March to November and that comparatively few lambs are dropped in the months of December, January and February, it has been found desirable to present records of lambing in calendar years. Satisfactory records were obtained for the year 1929 and these are shown below in statistical divisions:—

District.	Ewes Mated.	Lambs Marked.	Proportion of Lambs Marked to Ewes Mated.
			per cent.
Coast	304,700	184,100	60.4
Tablelands—North	604,200	378,800	62.7
Central	1,745,000	1,172,500	67.2
South	1,115,600	738,500	66.2
Total	3,464,800	2,289,800	66.1
Western Slopes—North	2,065,300	1,371,400	66.4
Central	2,122,200	1,327,100	62.6
South	2,529,100	1,737,400	68.7
Total	6,716,600	4,435,900	66.0
Plains—North	2,076,000	1,400,600	67.4
Central	2,149,200	1,046,600	48.7
Riverina	3,205,800	2,328,300	72.6
Total	7,431,000	4,775,500	64.3
Western Division	2,116,500	877,600	41.5
Grand Total	20,033,600	12,562,900	62.7

Breeds of Sheep.

The principal breed of sheep in New South Wales is the celebrated short-woolled merino strain. Stud merino flocks are maintained throughout the State and a register is compiled annually giving the history of the flocks, together with the breeding of the rams used. The number of lambs bred and sheep sold and particulars of sheep purchased are also published.

At the 31st December, 1928, there were over 828,000 stud sheep in the 154 registered flocks; comprising rams 86,000, ewes 492,000, and lambs 250,000. In addition to the registered stud flocks a number of other stud flocks are maintained, some of them of large dimensions.

The number of other pure breeds is very small. Crosses of long-woolled breeds with the merino are not at present numerous, but their numbers vary markedly according to market conditions. Merino comebacks, the progeny of crossbred ewes mated to merino rams are, however, fairly numerous. British breeds of sheep are represented chiefly by the Lincoln, English Leicester, Romney Marsh, and Border Leicester breeds, while Suffolk, Ryeland, and Dorset Horn sheep have been introduced for the raising of early-maturing lambs.

Lincolns and Border Leicesters and their crosses with merinos, constitute the largest proportionate number of crossbred varieties. The proportion of crossbred and comeback sheep is considerably greater than it was in 1901, prior to the development of export in the mutton trade. It has fallen since 1919 on account of the more favourable market for merino wool.

The estimated numbers of the principal breeds in the State at 30th June, 1929, were:—40,344,000 merino, 437,000 other pure breeds, 5,581,000 merino comebacks, and 3,823,000 crossbreds.

WOOL.

The prosperity of New South Wales still depends very largely on its sheep flocks and upon the condition of the wool markets of the world. Secondary industries have become important factors, and other primary industries have been developed, but the productivity of the sheep flock has been increased, and the value of the wool clip is still the most important factor of the year in the primary production of the State.

Production of Wool.

Wool is produced in New South Wales principally by shearing the live sheep, but also to a considerable extent by fellmongering. Comparatively little is picked from the carcasses of dead sheep on the holding. Many sheep skins are exported oversea and interstate, and the quantity of wool on these is estimated and included in the total production.

Formerly considerable numbers of sheep were washed before being shorn, and, as particulars of the resultant wool were not recorded separately prior to 1876, the estimates of the quantity of wool produced up to that date are approximate.

The output of wool is stated as in the grease, as data as to its clean scoured yield are not available. A small proportion of the shorn wool is scoured before being marketed, and the whole of the fellmongered wool is in a scoured condition. This is stated at its greasy equivalent by applying a factor determined annually, the proportion being rather more than 2 lb. of greasy to 1 lb. of scoured. Very little wool is now washed on holdings.

The following table shows, in quinquennial periods since 1876 and annually during the past ten seasons, the total quantity of wool produced (as in the grease) in New South Wales, together with the aggregate value at Sydney, and the value to growers since 1919-20. The figures for 1908 and subsequent years are on the revised basis:—

Period.	Wool Produced (000 omitted).		Year.	Wool Produced (000 omitted).		
	Quantity as in the Grease.	Value at Sydney.		Quantity as in the Grease.	Value at Sydney.	Value at place of Production.
	lb.	£		lb.	£	£
1876-1880	718,397†	31,298	1919-20	352,071	26,503	24,674
1881-1885	943,814†	40,563	1920-21	275,269	14,163	13,023
1886-1890	1,294,781†	44,773	1921-22	333,856	16,971	15,557
1891-1895	1,813,630†	49,025	1922-23	336,899	24,566	23,048
1896-1900	1,408,240†	42,984	1923-24	303,032	29,672	28,209
1901-1905	1,302,585†	46,719	1924-25	369,118	35,989	34,073
1906-1910	1,846,604†	74,788	1925-26	402,490	28,216	26,223
1911-1915	1,786,281	77,339	1926-27	499,320	35,629	33,234
1916-1920*	1,640,325	92,535	1927-28	443,860	36,064	33,874
1921-1925*	1,618,174	121,361	1928-29	482,920	33,206	30,879
1926-1930*	2,288,560	153,238	1929-30	459,970	20,123	18,000‡

* 5 years ended 30th June. † Excludes wool exported on skins. ‡ Preliminary, subject to revision.

A decline occurred in production between 1911 and 1920 on account of diminution in the number of sheep due to unfavourable seasons. After the breaking of the severe drought in June, 1920, the seasons were favourable up to 1927, and the flocks increased to a number larger than that in any of the previous thirty years. The fleece has also been improved considerably, and the wool production of 1926-27 was more than 23 per cent. greater than in any previous year. Despite relatively unfavourable seasons in 1927-28 and 1929-30 the production of wool remained at a high level. The value of the output increased under the influence of a marked rise in price—until in the season 1924-25 an average price of 25½d. per pound was realised

for greasy wool at the Sydney wool sales. For the succeeding four seasons the prices were about one-third below this level, except for a temporary rise in 1927-28. In 1929-30 the average greasy price was only 19½d. per lb., and this is reflected in a heavy fall in the total value of the wool produced.

Particulars of the number of sheep shorn, the average weight of wool per sheep, and the respective amounts of shorn and other wool produced since 1916-17 are given below:—

Year ended 30th June.	Sheep shorn during year.	Average clip per sheep (greasy).	Weight of Wool Produced (as in the grease).				
			Shorn and crutched.	Dead.	Fell- mongered.	Exported on skins.	Total produc- tion.
	Thousands.	lb.	Thousand lb. (000 omitted)				
1917	35,920	7·8	280,169	998	31,074	6,000	318,241
1918	39,450	7·3	288,013	1,040	28,702	5,100	322,855
1919	40,230	7·4	297,699	2,166	32,378	8,710	340,953
1920	41,280	7·2	297,176	2,528	42,271	10,096	352,071
1921	34,560	6·8	235,041	1,198	30,840	8,190	275,269
1922	37,370	7·8	291,500	413	30,445	11,498	333,856
1923	40,270	7·3	293,997	1,008	27,199	14,695	336,899
1924	38,370	7·1	272,438	1,249	17,749	11,596	303,032
1925	41,320	8·2	340,956	755	11,763	15,644	369,118
1926	45,550	8·1	368,739	761	14,780	18,210	402,490
1927	51,880	8·8	456,872	680	22,330	19,440	499,322
1928	53,730	7·5	404,465	1,705	19,780	17,910	443,860
1929	50,300	8·8	445,230	860	16,770	20,060	482,920
1930	53,260	7·8	417,730		18,990	23,250	459,970

Average Weight of Fleece.

Shearing operations are carried out usually between May and November, and the average weight of the fleece varies very greatly under the influence of the seasonal conditions ruling during the period in which the wool is grown. The proportion of lambs and of merino sheep in the flocks are important factors affecting the average weight of the fleece. The average weight of fleece shorn at the general shearing of 1928 and 1929 is shown below in statistical divisions of New South Wales:—

Division.	1928.		1929.	
	Sheep.	Lambs.	Sheep.	Lambs.
	lb.	lb.	lb.	lb.
Coastal	8·56	2·39	8·35	2·35
Tablelands—North	8·37	2·68	8·03	2·65
Central	9·22	2·50	8·24	2·49
South	9·87	2·18	8·68	1·84
Total	9·19	2·40	8·31	2·28
Western Slopes—North	8·39	2·85	8·22	2·79
Central	9·23	2·60	8·26	2·64
South	9·64	2·76	8·05	2·53
Total	9·09	2·73	8·17	2·62
Plains—North	8·38	2·64	8·78	3·11
Central	9·32	2·69	8·11	3·04
Riverina	10·18	2·72	9·26	2·78
Total	9·40	2·69	8·77	2·92
Western Division	9·52	2·81	8·76	2·76
Total	9·25	2·66	8·44	2·70

The foregoing figures exclude from account sheep and lambs shorn in the autumn. These constitute rather less than 5 per cent. of the total numbers shown. Wool produced by crutching operations is also excluded. This wool represents a variable proportion ranging up to 3 per cent. of the total wool clip.

World's Sheep and Wool Production.

The Annual Wool Review of the National Association of Wool Manufacturers (U.S.A.) shows the number of sheep and the approximate wool production for the latest available year. Generally, the figures are for the year 1929. The condensed table below includes only those countries which produced more than 20,000,000 lb. of wool. The total sheep is shown as 803,211,000 and the wool production 3,842,754,000 lb.

Of the total, the sheep of Australia represent 13.2 per cent., while the wool production is 24.1 per cent.

Country.	Number of Sheep.	Production of Wool in lb.	Country.	Number of Sheep.	Production of Wool in lb.
	'000 omitted.	'000 omitted.		'000 omitted.	'000 omitted.
Australasia—			North America—		
Australia	106,000	925,000	United States ...	48,913	363,447
New Zealand	29,051	222,491	Canada	3,731	21,234
Other	100	...	Other	63	186
Total	135,151	1,147,491	Total	52,707	384,867
Europe—			Central America—		
Bulgaria	7,986	22,887	Mexico	1,798	1,320
France	10,000	44,000	Other	125	...
Germany	3,475	34,750	Total	1,923	1,320
Italy	8,500	37,500	South America—		
Rumania	12,801	55,000	Argentina	38,000	323,400
Russia	70,000	222,116	Brazil	8,500	24,200
Spain	20,000	99,000	Chile	4,500	32,500
United Kingdom ...	23,392	117,869	Uruguay	23,000	135,000
Yugoslavia	7,850	30,000	Other	20,287	30,147
Other	28,134	86,693	Total	94,287	545,247
Total	192,138	749,815	Africa—		
Asia—			Algeria	6,196	43,000
British India	35,000	70,000	Morocco	8,145	21,657
China	35,000	55,000	Union of South		
Persia	7,500	45,000	Africa	44,308	311,967
Russia in Asia ...	133,885	384,252	Other	24,403	23,339
Other	32,568	59,799	Total	83,052	399,963
Total	243,953	614,051	World Total	803,211	3,842,754

Wool Marketing.

For many years the whole of the wool grown in New South Wales was shipped for sale in London. As the number of continental buyers increased, however, there developed a tendency, which harmonised entirely with Australian interests, to seek supplies of the raw material at their source, and after the year 1885 Sydney wool sales began to assume importance.

Sydney Wool Sales.

The wool sales in Sydney usually commence about September and continue in series on fixed dates over a period of eight or nine months. These sales are attended by representatives of firms from practically every country in which woollen goods are manufactured extensively. From data at present available it is not possible to state what proportion of the wool received in Sydney is sold locally before export.

The following statement compiled from the records of the Sydney Wool Selling Brokers' Association shows particulars of Sydney wool sales since 1913, omitting from account the four seasons (1916-17 to 1919-20) during which the appraisement system under the Imperial Purchase Scheme was in operation:—

Season.	Wool Sold.*		Proportion of Wool of each Description Sold.						Average weight per Bale.	
	Weight.	Value.	Breed.		Growth.		Condition.		Greasy.	Scoured. ↑
			Merino.	Cross-bred.	Fleece, etc.	Lambs.	Greasy.	Scoured.		
	lb.000	£000	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	lb.	lb.
1913-14	277,112	10,333	83.0	11.0	94.4	5.6	88.7	11.3	334	223
1914-15	190,212	6,739	83.8	16.2	95.4	4.6	92.0	8.0	341	217
1915-16	245,298	10,430	84.5	15.5	95.8	4.2	86.7	13.3	332	223
1920-21	107,584	5,610	89.1	10.9	98.9	1.1	93.2	6.8	340	227
1921-22	313,836	14,755	73.2	26.8	95.7	4.3	90.7	9.3	320	240
1922-23	268,873	13,922	79.0	21.0	94.3	5.7	93.3	6.7	321	234
1923-24	224,779	21,445	83.9	16.1	96.6	3.4	92.6	7.4	318	238
1924-25	212,664	21,124	85.9	14.1	94.7	5.3	95.1	4.9	327	232
1925-26	345,635	23,601	88.6	13.4	93.7	6.3	95.2	4.8	315	227
1926-27	374,125	26,377	87.9	12.1	94.9	5.1	94.1	5.9	322	208
1927-28	338,476	26,885	90.3	9.7	95.3	4.7	93.7	6.3	306	226
1928-29	356,696	25,113	88.6	11.4	96.0	4.0	95.9	4.1	313	236
1929-30	342,084	14,888	90.1	9.9	95.5	4.5	95.7	4.3	305	231

* Scoured being included at its greasy equivalent.

† Including skin wool.

The figures as to quantity and value in this table are not comparable with any others quoted herein, because considerable quantities of wool grown in New South Wales are sold in other States, notably in Victoria and South Australia, while small quantities of wool from the other States, mainly from Queensland, are marketed in Sydney. The wool produced in any season is not always sold in the same season. The uncertainty consequent on the outbreak of war caused a heavy decline in sales during 1914-15, and sales were retarded again on the resumption of auctions in 1920-21, owing to the existence of large stocks and to uncertain conditions. At the close of sales in June there is usually very little wool remaining unsold in Sydney. The balance remaining unsold in store on 30th June has not been appreciable since 1925, when 171,700 bales remained unsold. At 30th June, 1930, there were approximately 17,883 bales of unsold wool in store at Sydney.

Particulars of the appraisement and purchase of wool under the Imperial Wool Purchase Scheme which operated during the years 1916-17 to 1919-20 were published in earlier editions of this Year Book.

Sydney is by far the largest wool-selling centre of Australia, the quantity sold at Sydney wool sales being, usually, greater than at the two next largest centres (Brisbane and Melbourne) combined. Wool is sold also at Albury, on the southern border, but these sales are comparatively small in extent.

Prices of Wool.

On account of the very large number of varieties of wool, of the pronounced changes of condition from season to season, and of the varying proportions of each variety in the total output, it is a matter of great difficulty to obtain price quotations which will show accurately the fluctuations of values from year to year.

However, it appears that the average values of Australian wool per pound have been subject to alternate periods of rising and falling which, on the basis of average export values from New South Wales, have been as follows:—
Rising to 1830, falling 1831 to 1849, rising 1850 to 1861, falling 1862 to 1894, rising 1895 to 1907, falling 1908 to 1912, rising 1912 to 1924, rising 1925 to 1928, falling 1929 and 1930. These periods indicate the general trend only, because in certain years, notably 1900, 1914-15, 1921 and 1922, prices varied irregularly.

The following statement, compiled from the official records of the Sydney Wool Selling Brokers' Association, shows the average prices realised for wool at Sydney auctions since 1900:—

Season ended 30th June.	Average Prices per lb.		Season ended 30th June.	Average Prices per lb.		Season ended 30th June.	Average Prices per lb.	
	Greasy.	Scoured.		Greasy.	Scoured.		Greasy.	Scoured.
	d.	d.		d.	d.		d.	d.
1900	11½	18½	1911	8½	14½	1922	12½	14½
1901	5½	10½	1912	8½	14	1923	17½	23
1902	6½	11½	1913	9½	16½	1924	23½	36
1903	8	14½	1914	9½	16½	1925	25½	41½
1904	8½	14½	1915	8½	15½	1926	16½	25½
1905	8½	14½	1916	10½	17½	1927	17½	29½
1906	9	16½	1917	14½*	20½*	1928	19½	31½
1907	9½	15½	1918	14½*	23½*	1929	16½	27½
1908	9	15½	1919	15*	25½*	1930	10½	18½
1909	7½	13½	1920	15½*	26½*			
1910	9½	15½	1921	12½	25			

* Price as appraised under Imperial Wool Purchase Scheme. The average amount to be added to the value of greasy wool in respect of surplus profits is 6·88d. per lb., of which one-half accrued to Australian growers.

These figures represent the average price of wool sold during the financial year, and furnish an accurate guide to the average value per pound greasy of the clip produced in individual years, provided due allowance be made for carry over of unsold wool. Making allowances necessary on this account, the average prices realised for wool produced in various seasons were 12½d. in 1920-21, 23½d. in 1924-25, and 16½d. in 1925-26. The prices of both greasy and scoured wool shown above are affected by changes in the proportion of merino to cross-bred and of fleece to lambs' wool sold, and by such variable qualities as length, fineness, and soundness. The wool sold locally as scoured is of limited range and quantity, and the prices quoted are not representative.

Data as to the clean scoured value of wool in local markets are not at present available for publication. The average prices of greasy wool provide only an approximate measure of the variations in the value of wool as a commodity from season to season. The market price of the successive clips

is affected by changes in the proportion of natural grease which the wool contains, and by variations in the proportionate quantities of wool of various qualities. During the war-time appraisements more than 800 distinct types of wool were classified.

British Australian Wool Realisation Association Limited.

Particulars of the formation and activities of this organisation are contained in the Year Book for 1921 at page 781 and for 1924 at page 586, and a summary of payments made to woolgrowers was published on page 630 of this Year Book for 1928-29. As at 10th June, 1930, the accounts showed total assets of £1,011,103, part of which was held pending decision of taxation appeals.

Destination of Wool Shipped.

The following statement shows the destination of the overseas shipments of wool, excluding wool on skins, from New South Wales during the two years ended June, 1921, and 1930, in comparison with similar information for the year 1913. The figures relate to the cargoes actually despatched during the periods specified, and not to the wool sold during each season:—

Destination.	Oversea Exports of Wool (000 omitted).								
	Greasy.			Scoured.			Tops.		
	1913.	1920-21.	1929-30.	1913.	1920-21.	1929-30.	1913.	1920-21.	1929-30.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ...	59,120	80,322	62,865	10,609	18,164	5,973	40	422	69
Canada ...	...	17	3	...	60	18	...	287	283
Austria ...	7,297	734	...	33	293	...	29	...	...
Belgium ...	27,222	12,144	40,131	2,021	3,382	2,301	...	...	...
France ...	76,486	19,03	84,008	12,658	974	4,364	...	...	...
Germany ...	54,266	5,174	48,049	4,579	185	2,545	...	...	...
Italy ...	3,638	6,243	1,663	132	12	183	...	...	...
Japan ...	5,661	6,179	44,726	129	70	966	3,435	2,466	...
Netherlands ...	...	722	159	...	6	13	...	...	...
Russia ...	...	...	1,961	...	...	1	...	...	...
United States ...	4,286	15,236	10,101	85	3,217	149	...	1,344	8
Other Countries ...	23	8,007	1,661	2	68	85	58	761	...
Total ...	228,999	140,061	303,719	30,248	26,411	16,598	3,562	5,280	362

CATTLE.

Apart from dairying, industries connected with cattle, such, for instance, as the export of beef, have never existed on a large scale in New South Wales. Local production scarcely meets the requirements of local consumption, and only the import of cattle from Queensland enables the maintenance of a small export trade in frozen and tinned beef. From 1916 to 1922 an appreciable increase was apparent in the number of cattle depastured, and the number in 1922 constituted a record for the State. The causes of this increase and the subsequent decline are discussed later.

The first effect of the check to meat prices caused an accumulation of cattle until 30th June, 1922, and the continuance of unfavourable markets led to a diminution in herds during the next two years. Breeding operations were curtailed, importation of live stock from Queensland was very restricted, and the herds were heavily depleted. Excluding cows in registered dairies the number of cattle in New South Wales decreased from 2,659,308 in 1922 to 1,743,225 in 1929.

The following table shows the total number of cattle in the State, including dairy cattle, at various dates:—

Year.	Cattle.	Year.	Cattle.	Year.	Cattle.
1861	2,271,923	1896	2,226,163	1923*	3,251,180
1866	1,771,809	1901	2,047,454	1924*	2,938,522
1871	2,014,888	1906	2,549,944	1925*	2,876,254
1876	3,131,013	1911	3,194,236	1926*	2,937,130
1881	2,597,348	1916	2,405,770	1927*	2,818,653
1886	1,367,844	1921*	3,375,267	1928*	2,848,654
1891	2,128,838	1922*	3,546,530	1929*	2,784,615

* At 30th June.

The totals shown above include cows in registered dairies. These numbered 941,390 in 1929 as compared with 887,222 in 1922.

The principal distinct breeds of cattle in the State are the Durham or Shorthorn, Hereford, Jersey, Ayrshire, and Devon, but crosses from these breeds predominate. The number of pure and stud cattle in the State probably does not exceed 250,000.

Calving.

The following table shows the calving in the State for the past ten seasons. The disparity between the calves dropped and those surviving at the end of the year is due mainly to the fact that in dairying districts about 95 per cent. of bull calves, and 70 per cent. of heifer calves are killed shortly after birth.

As more than one-half of the cows of the State are in registered dairies, and their progeny is generally not available for beef purposes, the beef stock of the State is mainly augmented from the interior divisions, where the calves surviving at the end of the year represent over 90 per cent. of those dropped.

From the table below it will be seen that the number of calves slaughtered for food approximates one-sixth of the total number dropped:—

Year ended 30th June.	Calves.			Year ended 30th June.	Calves.		
	Dropped during year.	Surviving at end of year.	Slaughtered for Food.*		Dropped during year.	Surviving at end of year.	Slaughtered for Food.*
1920	726,670	479,521	76,811	1925	†	422,736	159,999
1921	813,665	536,729	79,594	1926	881,905	458,939	173,806
1922	995,128	613,702	103,883	1927	870,816	429,405	146,882
1923	961,154	489,107	133,524	1928	855,927	421,654	144,850
1924	804,928	373,392	123,760	1929	936,156	455,529	161,994

* Includes a number of calves dropped during previous year.

† Not available.

Interstate Movements of Cattle.

By reason of the existence of diseases among the cattle of certain districts, notably the presence of cattle tick in the north-east of New South Wales and in parts of Queensland, the interstate movement of cattle is closely regulated in order to stay the spread of disease. In certain cases cattle are quarantined, dipped or sprayed on admission and subjected to special treatment should such become necessary within a fixed period thereafter.

The following statement shows the number of live cattle (so far as recorded) passing into and out of New South Wales during each of the last five years. The movement is practically all overland, comparatively few cattle being transported by sea:—

Year.	From New South Wales.				To New South Wales.			
	To Victoria.	To Queensland.	To South Australia and by Sea.	Total.	From Victoria.	From Queensland.	From South Australia and by Sea.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1925-26	121,596	53,725	21,631	196,952	72,637	303,236	869	381,742
1926-27	177,140	27,437	17,982	222,559	25,101	250,268	1,560	276,929
1927-28	111,434	9,832	8,385	129,651	36,929	339,587	2,427	378,943
1928-29	102,736	12,694	37,006	152,436	32,189	186,227	566	218,982
1929-30	99,803	11,471	11,031	122,305	16,591	155,822	535	172,948

Although the effects of seasonal variations are apparent during this period there is, on the whole, a heavy but fluctuating import of cattle to New South Wales from Queensland, and a considerable export to Victoria. The interchange with South Australia is small.

During the five years covered in the table there was an excess of imports from Queensland of about 1,124,981 cattle, and an excess of exports to Victoria amounting to 429,262. The total net gain to New South Wales from all sources was 595,621.

Increase and Decrease of Cattle.

The number of cattle in New South Wales varies under the influence of three factors, viz., importation, slaughtering, and natural increase, *i.e.* excess of calving over deaths from causes other than slaughtering. The operation in these during recent years is shown in part below:—

Year.	Net Imports of Cattle.	Calves reared (surviving at 30th June).	Cattle and Calves died from Disease, Drought, etc.	Cattle Slaughtered (excluding Calves.	Cattle at end of Year.
1918-19	(—) 48,082	605,867	*	386,650	3,280,676
1919-20	22,972	479,521	*	517,186	3,084,332
1920-21	396,611	536,729	*	446,551	3,375,267
1921-22	53,372	613,702	*	527,906	3,546,530
1922-23	5,890	489,107	*	605,526	3,251,180
1923-24	143,231	373,392	*	628,729	2,938,522
1924-25	78,095	422,736	*	658,827	2,876,254
1925-26	184,790	458,939	53,621	652,001	2,937,130
1926-27	54,370	429,405	76,114	665,347	2,818,653
1927-28	249,292	421,654	70,585	549,677	2,848,654
1928-29	66,546	455,529	48,882	617,000	2,784,615

(—) Denotes excess of exports.

*Not available.

The figures shown in the table do not balance from year to year because it is not possible to obtain all necessary data relative to calving and disposal of calves. Nevertheless the table illustrates in a general way the influence of the various factors.

HORSES.

There was a great advance in horse-breeding between 1910 and 1918, owing to the increased demand which arose as a consequence of widening settlement, prosperous seasons, and defence requirements. During the lengthy

drought which terminated in June, 1920, the numbers declined heavily, and the decline has continued especially in the last three seasons owing to the increased use of motors for transport.

The following table shows the number of horses in New South Wales at the end of quinquennial periods from 1861 to 1916, and annually thereafter:—

Year.	Horses.	Year.	Horses.	Year.	Horses.
1861	233,220	1906	537,762	1922*	669,800
1866	274,437	1911	689,004	1923*	660,031
1871	304,100	1916*	719,542	1924*	658,372
1876	366,703	1917*	733,791	1925*	647,503
1881	398,577	1918*	742,247	1926*	651,035
1886	361,663	1919*	722,723	1927*	623,392
1891	469,647	1920*	662,264	1928*	589,377
1896	510,636	1921*	663,178	1929*	567,371
1901	486,716				

* At 30th June.

The number of horses in the State reached its maximum of 746,170 in 1913, but in 1929 it had fallen to 567,371.

There is a small export trade to India, where the horses are required as remounts for the army. The number of ordinary horses sent there during the year ended 30th June, 1930, was 370; the value being £8,250, and 39 valued at £1,018 were sent to Hawaii.

There is comparatively little interstate movement of horses except to and from Queensland, and practically no import by sea. In 1926-27 there was a net import interstate by land of 5,124 horses and in 1927-28 a net import of 1,442, in 1928-29 a net import of 2,206, and in 1929-30 a net import of 4,638. The recorded number of horses which died from disease, drought, etc., on rural holdings was 11,022 in 1926-27, 16,665 in 1927-28, and 11,449 in 1928-29.

Horse Breeding.

Horse breeding operations have been decreasing since 1913, when the number of foals reared was 79,620. A sudden decrease occurred as a result of the drought which broke in June, 1920.

The number of foals reached its lowest recorded level (20,065) in 1921, but had increased to 39,415 in 1925, falling again after a further interval of four years to a new low level (19,991) in 1929.

The decrease in foals is much more striking than the decline in the total number of horses, and the foals reared in recent years are much below the number required for the replacement of the horses now in use.

The increased use of motor power on farms and the consequent depreciated value of the horse have resulted in the disposal of studs formerly engaged in breeding utility horses.

The following table shows the number of foals recorded at the end of each of the past twenty years:—

Year ended 31st December.	Foals reared (Surviving at end of year).	Year ended 30th June—	Foals reared (Surviving at end of year).	Year ended 30th June—	Foals reared (Surviving at end of year).	Year ended 30th June—	Foals reared (Surviving at end of year).
1909	61,153	1915	60,337	1920	24,755	1925	39,415
1910	71,382	1916	41,818	1921	20,065	1926	36,521
1911	77,294	1917	49,087	1922	29,685	1927	28,282
1912	76,462	1918	46,832	1923	28,616	1928	22,922
1913	79,620	1919	40,015	1924	24,307	1929	19,991

OTHER LIVE STOCK.

Particulars of the number of pigs in the State are shown on a later page.

The number of goats in New South Wales in June, 1929, was 17,337, including 2,035 Angora goats. Under the provisions of the Dog and Goat Act, 1898, the use of dogs or goats for purposes of draught is prohibited.

In New South Wales camels are used principally as carriers on the Western Plains, but their numbers are steadily diminishing. The number in June, 1929, was only 492, compared with 1,792 at the close of the year 1913.

Donkeys and mules are not extensively used in New South Wales, the numbers in 1929 being 105 of the former and 67 of the latter. Most of these are situated in the Western Division, where they are used for purposes of transport. Movements across the border cause marked fluctuations in the number in the State.

The climate of certain portions of the State is considered suitable for ostrich farming. The number of ostriches at the end of June, 1929, was only 14.

PRICES OF LIVE STOCK.

The following statement shows the average prices of fat stock in the metropolitan saleyards at Flemington during recent years. The amounts stated are the means of the monthly prices which are published annually in the Statistical Register:—

Stock.	1926.	1927.	1928.	1929.
Cattle.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bullocks and Steers—				
Mean of Prime and Good	11 7 0	14 2 0	12 7 0	14 7 0
Cows and Heifers—				
Extra Prime and Prime	9 0 0	11 17 6	10 10 0	11 10 0
Calves, Vealers—				
Good	2 18 9	3 12 6	4 5 0	4 9 0
Sheep.				
Cross-bred—				
Wethers—				
Mean of Prime and Good	1 4 9	1 2 9	1 8 3	1 4 0
Ewes—				
Mean of Prime and Good	1 1 0	0 19 0	1 4 6	0 19 0
Merino—				
Wethers—				
Mean of Prime and Good	1 4 0	1 2 6	1 8 0	1 3 0
Ewes—				
Mean of Prime and Good	0 19 6	0 17 6	1 1 9	0 18 0
Lambs, and Suckers Woolly—				
Mean of Prime and Good	1 1 0	1 0 0	1 4 0	1 0 3
Pigs.				
Porkers—				
Mean of Good and Medium	2 13 0	2 16 0	2 17 6	2 15 6
Baconers—				
Mean of Good and Medium	4 0 0	4 4 0	3 17 0	3 17 0

In regard to the monthly prices of sheep it should be noted that the quantity of wool carried on sheep is an important factor affecting the price. As a general rule sheep at market in January and February have been shorn, during March and April they have growing fleece, from May to August they are woolly, and from September to December both shorn and woolly sheep are marketed.

The prices of stock in local markets are influenced very largely by the nature of the seasons, but the condition of oversea markets for wool, meat, hides, skins, etc., is also an important consideration. During bad seasons stock are hastened to market and prices fall, but, when the dry weather breaks, efforts to re-stock cause a decrease in yardings, and prices for a time are abnormally high.

During 1923 improved seasonal conditions, following a protracted spell of dry weather, led to competition amongst graziers to replenish their flocks and herds, and prices of stock rose rapidly.

The conditions throughout 1924 were good, and the price of cows and bullocks declined, owing to the pressure of supplies and the absence of a profitable oversea market. The supplies of sheep were restricted by reason of the excellent prices prevailing for wool, and prices, especially for cross-breeds, rose considerably, exceeding the levels reached in 1920. The prices of fat sheep at Flemington declined after 1924 owing to the heavy supply, but there was a sustained improvement in the prices of fat cattle, which continued throughout 1926 and 1927. With a decrease in the number of sheep for slaughtering in 1928, prices advanced by about 25 per cent., while cattle, though marketed in smaller quantities than in 1927, declined considerably.

SLAUGHTERING.

The slaughter of live stock for sale as food, either for local consumption or for export, is permitted only in places licensed for the purpose, in accordance with the Cattle Slaughtering Act, 1902.

The following table shows the number of slaughtering establishments and the total number of stock slaughtered in the State at intervals since 1901. The figures relating to the establishments prior to 1921 are in excess of the actual number, as they include a large number of butchers' shops in country districts.

Year ended 30th June.	Slaughter-houses.	Stock Slaughtered in Establishments and on Farms and Stations.					
	No.	Sheep.	Lambs.	Bullocks. †	Cows.	Calves.	Swine.
1901*	1,642	4,372,016	147,117	202,795	113,374	10,654	248,311
1906*	1,522	4,229,407	252,648	237,722	94,955	28,200	281,650
1911*	1,287	6,146,739	400,186	306,773	182,178	59,969	316,331
1916	1,071	3,815,477	361,831	187,882	165,134	31,986	219,806
1921	960	3,506,008	345,255	300,941	145,610	70,504	238,259
1926	1,103	3,258,202	994,203	383,005	268,996	178,806	402,479
1927	1,075	4,167,866	1,451,536	365,136	300,211	146,947	461,981
1928	1,057	3,872,984	1,136,527	283,673	266,004	144,850	412,424
1929	1,056	3,578,905	1,093,930	362,553	254,747	161,991	406,187

* Calendar Year. † Includes a small number of bulls.

In 1928-29 the stock slaughtered in the county of Cumberland numbered 2,024,194 sheep, 942,056 lambs, 179,517 bullocks, 110,646 cows, 138,772 calves, and 189,955 pigs. The numbers slaughtered for food on stations and farms were:—Sheep, 979,080; lambs, 21,346; cattle, 20,157; and pigs, 10,519.

The particulars stated above relate to the stock slaughtered for all purposes, and the following statement shows the number of sheep and cattle used for local consumption as fresh meat and those frozen for export or preserved during the last three years. Occasionally, during periods of shortage, meat frozen or chilled for export is released for local consumption. Such a period of shortage was experienced in the latter part of 1923.

Purpose for which slaughtered.	1926-27.		1927-28.		1928-29.	
	Sheep and Lambs.	Cattle (including Calves).	Sheep and Lambs.	Cattle (including Calves).	Sheep and Lambs.	Cattle (including Calves).
	No.	No.	No.	No.	No.	No.
Local consumption ...	4,117,943	757,414	4,304,898	646,225	4,177,410	707,429
Export to other States or boiling down for tallow ...	28,000	3,008	26,377	3,285	29,200	2,504
Export oversea ...	1,225,182	30,247	641,082	30,202	718,570	51,410
Meat-preserving ...	248,277	21,925	37,154	14,815	42,655	17,651
Total Slaughtered ...	5,619,402	812,594	5,009,511	694,527	4,967,835	778,994

Marked fluctuations are experienced in regard to the frozen and preserved meat industries, and the seasonal influence on supply causes pronounced variations in slaughter for local consumption.

In country towns licensed slaughter-houses are inspected by a local officer appointed and controlled by the Local Government authorities. In Newcastle public abattoirs were established in 1912 under control of a board, elected by the councils of the local areas in the district.

In the metropolitan area stock is slaughtered at the State Abattoirs at Homebush Bay. Animals sold at Flemington are inspected before being killed and those found to be diseased are destroyed, while "doubtful" beasts are marked for further special attention at the abattoirs. There is a staff of inspectors at the State Abattoirs and inspectors are stationed at private slaughtering premises throughout the County of Cumberland. The operations of the inspectorial staff are supervised by the veterinary officers of the Metropolitan Meat Industry Board, who pay regular visits to the different establishments.

Particulars of stock slaughtered at the State Abattoirs, Homebush Bay during recent years are shown in the following statement:—

Year ended 30th June.	Cattle.	Calves.	Sheep and Lambs.	Pigs.
1926	234,925	134,485	1,828,041	182,439
1927	255,595	107,121	2,713,943	202,688
1928	225,785	111,693	2,416,787	179,531
1929	230,153	116,757	2,072,259	176,053
1930	192,080	117,493	2,790,104	188,856

The following table shows the numbers of stock yarded annually at Flemington saleyards, where most of the stock slaughtered in Sydney are sold:—

Year ended 30th June.	Sheep and Lambs.	Cattle and Calves.	Year ended 30th June.	Sheep and Lambs.	Cattle and Calves.
1921	2,255,970	251,065	1926	2,673,413	320,255
1922	3,179,875	282,399	19-7	3,772,107	377.0 3
1923	3,558,487	327,506	1928	3,432,961	334,786
1924	2,005,887	320,914	1929	2,993,689	356,864
1925	1,832,981	313,540	1930	3,960,649	314,825

Certain aspects of the local meat trade, especially the distribution and consumption of meat, are discussed in the chapter "Food and Prices" of this Year Book.

Prices of Meat, Sydney.

The following table shows the average wholesale prices of meat (in pence per lb.) in Sydney in each month since January, 1928:—

Month.	Beef (Ox).						Mutton and Lamb.					
	1928.		1929.		1930.		1928.		1929.		1930.	
	Fores.	Hinds.	Fores.	Hinds.	Fores.	Hinds.	Mutton.	Lamb.	Mutton.	Lamb.	Mutton.	Lamb.
January	d. 3.1	d. 5.9	d. 2.3	d. 5.5	d. 6.0	d. 8.3	d. 4.5	d. 6.1	d. 4.1	d. 6.3	d. 3.5	d. 5.3
February	3.1	6.2	3.2	6.3	4.6	7.6	4.9	6.6	4.9	7.3	3.7	5.5
March	2.7	5.6	3.9	7.4	4.4	7.4	5.4	6.8	5.5	6.0	3.6	5.5
April	2.7	5.3	3.9	7.3	3.7	6.7	5.5	7.4	6.3	7.8	3.4	5.6
May	2.9	4.9	3.7	5.3	3.2	6.4	4.8	7.1	4.5	6.8	3.4	5.6
June	2.8	4.8	3.7	5.7	4.3	6.5	4.5	6.9	4.6	6.4	3.3	6.2
July	3.3	5.4	3.6	5.8	5.4	7.0	4.6	7.1	3.8	5.5	4.5	6.4
August	2.6	5.0	4.4	6.7	5.0	7.3	4.3	7.2	4.1	6.2	4.4	6.1
September	2.6	4.9	5.4	7.6	4.1	7.6	4.2	6.9	3.9	5.8	3.5	5.3
October	2.5	5.0	5.7	8.0	3.3	5.8	3.9	6.3	4.0	5.6	2.9	4.8
November	2.4	5.0	5.9	8.1	..	..	3.7	5.9	3.1	4.8	..	..
December	2.4	5.3	6.0	8.2	..	..	4.0	6.1	3.4	5.7	..	..
Average	2.8	5.3	4.3	6.9	..	..	4.5	6.7	4.4	6.4	..	..

MEAT TRADE.

Meat Export Trade.

The meat export trade commenced to assume importance in New South Wales toward the end of the nineteenth century, when the export of frozen and chilled meat became possible through the provision of refrigerated space in ocean steamers.

The oversea export trade has, for both frozen and canned meats, grown considerably, although its progress has been subject to vicissitudes. Especial attention is given to preparation and transport of meat for export in order to ensure a high standard in the product. Stringent regulations have been issued by the Department of Trade and Customs regarding inspection and shipment of meat exported. The work is carried out by the Commonwealth authorities. All stock killed for export are examined in a manner similar to those for local consumption, and carcasses which have been in cold storage are re-examined immediately before shipment. In all the large modern steamers visiting the ports of New South Wales refrigerated space has been provided.

The number of stock available for export depends mainly upon the season, as in periods of scarcity the local demand absorbs the bulk of the fat stock marketed.

The quantity of frozen meat exported overseas in various years since 1891 is shown below. Ships' stores, amounting annually to several millions of pounds in weight, are not included in the table:—

Year.	Frozen or Chilled.				Preserved.		Value of all Meat Exported.†
	Beef.	Mutton and Lamb.	Total Weight.	Total Value.	Weight.	Value.	
	cwt.	cwt.	cwt.	£	lb.	£	£
1891	*	*	105,013	101,823	6,509,928	85,629	201,421
1893	26,529	559,507	586,036	294,596	14,385,390	187,957	562,389
1901	115,050	351,516	466,566	541,525	10,086,940	209,697	914,573
1906	32,640	455,165	487,805	579,294	3,121,933	62,307	724,048
1911	65,097	535,259	600,356	758,155	20,783,779	401,384	1,291,404
1915-16	7,000	236,099	243,099	562,262	4,087,618	159,711	771,502
1920-21	110,727	166,039	276,766	937,040	4,479,460	235,801	1,225,354
1925-26	44,172	258,444	302,616	999,243	3,786,003	126,884	1,177,712
1926-27	90,143	410,588	500,731	1,013,959	6,002,937	211,210	1,304,650
1927-28	31,464	157,775	189,239	474,933	2,621,283	93,308	631,711
1928-29	63,149	202,173	265,322	702,449	2,534,832	82,928	857,635
1929-30	46,681	308,427	355,108	894,408	2,867,259	117,637	1,050,623

* Not available

† Fresh, frozen, preserved, and salted beef, mutton, and pork.

The movement of the London prices for Australian frozen meat during the last four years in comparison with 1913 is shown below. The quotations represent the monthly average of the weekly top prices and the annual averages are the means of the monthly quotes.

Month.	Frozen Beef (Hinds) per lb.					Frozen Mutton per lb.				
	1913.	1926.	1927.	1928.	1929.	1913.	1926.	1927.	1928.	1929.
January	d. 3½	d. 4½	d. 4	d. 5	d. 5½	d. 4½	d. 5½	d. 4½	d. 5½	d. 4½
February	3½	4½	4	4½	4½	4	5	4½	5½	4½
March	3½	4½	4	5	4½	3½	4½	4	5½	5
April	3½	5	4½	4½	5½	4	5	3½	*	5½
May	3½	5	4½	5½	5½	3½	5½	4	*	6½
June	3½	5½	5½	6	5½	4	4½	4	*	5½
July	4	5½	5½	6½	5½	4	4½	4	*	5½
August	4	5½	5½	6	4½	4	4½	4½	*	5½
September	4	5½	5½	5½	4½	4	4	5	*	5½
October	4½	5	5	5	4½	4	4½	4½	5½	5½
November	4½	4½	5½	5	4½	4	4	4½	4½	6
December	4½	4	5½	4½	4½	4½	4½	5	4½	6½
Annual Average	4	4½	5	5½	4½	4	4½	4½	5½	5½

* No quotation.

Supplies of chilled beef from South America to Great Britain and Ireland have increased since 1920, and now exceed their pre-war volume, while the total importations of frozen beef have decreased heavily. Towards the end of 1924 and during 1925 there was an appreciable rise in the prices of frozen beef, due to a falling-off in supplies from South America, but the supply increased again in 1926 and prices receded. The low prices of beef in the latter portion of 1926 and the early months of 1927 were due mainly to the protracted coal strike in England and the over-supply of chilled meat from South America. An embargo on imported fresh meat from the Continent and an abnormally wet and cold summer caused an increased consumption of home-grown, chilled, and frozen meats in the latter portion of the year with higher prices ruling.

In 1928 there was a substantial drop in shipments of chilled beef from South America, due partly to dry weather and partly to restrictions in an endeavour to cope with foot-and-mouth disease. With a decline in the production of home-grown beef prices rose temporarily to a higher level.

The demand for mutton was well sustained until towards the end of 1925, but the average price of 1926 was only 15 per cent. above the pre-war average. The decline in price in 1927 was partly due to poorer quality of mutton being sent forward, and with improved quality in 1928 the average price increased by 4d. per lb., but fell again in 1929.

The following comparison of the imports of meat to the United Kingdom shows the relative importance of the principal suppliers in relation to Australia:—

Year.	Beef (000 omitted) Frozen and Chilled.				Mutton and Lamb (000 omitted).			
	South American.	Australian.	Other.	Total.	South American.	New Zealand.	Australian.	Total.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1921	441	84	56	581	92	223	21	336
1922	440	59	38	537	85	151	49	285
1923	547	43	47	637	109	115	64	288
1924	551	38	38	627	103	120	23	249*
1925	511	68	39	618	112	125	26	268*
1926	571	57	35	663	92	134	38	267*
1927	617	32	22	671	106	137	31	276*
1928	532	51	26	609	113	140	27	281*
1929	500	46	37	583	96	137	30	282*

* Including other.

The average wholesale prices per pound obtained in each of the past ten years for Scottish and frozen mutton sold in London were:—

Year.	Best Scottish.	New Zealand.	Australian.	Argentine.	Year.	Best Scottish.	New Zealand.	Australian.	Argentine.
	d.	d.	d.	d.		d.	d.	d.	d.
1920	19½	9½	9½	9½	1925	13½	8½	6½	7½
1921	18	8½	7½	7½	1926	11½	6½	4½	5½
1922	16½	7½	6½	7½	1927	11½	6½	4½	5½
1923	15	8½	6½	7	1928	12½	7½	5½	6½
1924	14½	8	7½	7½	1929	*	6½	4½	5½

* Not available.

Meat Works.

Apart from slaughtering, important subsidiary industries in the handling of meat have arisen in the form of refrigerating and meat-preserving works. The extent of their activities, however, is subject to marked seasonal fluctuations. Particulars of the numbers of sheep and cattle handled in the various works, and of the output during the past five years are shown below:—

Year.	Carcases etc. Treated.				Output of Meat Preserving Works.		
	Refrigerating Works.		Meat Preserving.		Tinned Meat.		By-Products, etc.
	Cattle.	Sheep.	Sheep.	Meat and Sundries.	Weight.	Value.	Value.
	No.	No.	No.	lb. (000).	lb. (000).	£	£
1924-25	52,883	531,474	557	11,904	5,144	173,078	64,160
1925-26	50,882	804,857	1,423	11,758	4,988	186,815	74,586
1926-27	30,247	1,225,182	60,507	18,496	6,673	217,238	138,653
1927-28	30,202	641,082	1,642	9,182	3,920	167,815	42,619
1928-29	51,410	718,571	255	10,681	4,251	172,627	70,524

Included in the meat and sundries treated in meat preserving works in 1928-29 were 8,603,174 lb. of beef, 1,530,683 lb. of mutton and 547,236 lb. of sheep and ox tongues.

OTHER PASTORAL PRODUCTS AND BY-PRODUCTS.

The minor products accruing from pastoral occupations include skins and hides, tallow, lard and fat, furs, hoofs, horns, bones, bone-dust, glue pieces, and hair. Some of these are discussed in the chapter relating to factories, and the following table contains particulars of the oversea exports of these products at intervals since 1901:—

Products.	Oversea Exports.					
	1901.	1906.	1911.	1915-16.	1928-29.	1929-30.
Skins and Hides—						
Cattle No.	91,084	72,743	263,306	431,731	618,276	494,802
Horse No.	472	722	1,392	706	4,283	1,040
Rabbit and Hare ... lb.	*	7,380,455	5,795,839	4,352,640	8,225,868	5,817,993
Sheep No.	*	2,706,027	2,410,543	3,447,212	3,462,853	4,185,425
Other £	184,522	140,050	296,672	272,622	321,257	455,668
Bonedust cwt.	66,473	56,415	116,733	71,795	32	6,426
Bones cwt.	3,207	2,431	6,807	6,963	7,805	4,485
Furs (not on the skin) ... £	767	180	117	...	...	...
Glue-pieces and Sinews ... cwt.	12,862	11,003	20,580	13,276	3,605	5,756
Glycerine and Lanoline ... lb.	*	336,586	138,347	218,673	676	709
Hair (other than human) ... lb.	165,562	142,636	255,819	336,765	43,488	98,934
Hoofs cwt.	2,215	2,839	3,733	4,518	4,277	4,226
Horns £	12,532	11,979	13,475	3,455	6,469	6,604
Lard and Refined Animal Fats lb.	13,633	56,737	227,000	73,461	244,404	169,905
Leather £	374,541	411,030	334,996	551,026	331,556	320,927
Sausage-casings £	2,567	17,033	52,562	31,595	137,852	182,591
Tallow (unrefined) ... cwt.	305,227	357,031	612,911	128,290	800,422	258,164
Total Value of above-mentioned minor Pastoral Products exported £	1,223,728	1,780,466	2,486,492	2,176,838	5,392,207	3,855,818

* Not available.

Skins and hides are the most important of the items included in the table, and the number and value of these vary seasonally in accordance with slaughtering operations and the prevalence or otherwise of rabbits.

VALUE OF PASTORAL PRODUCTS EXPORTED.

The total value of goods exported oversea, which may be classed as pastoral products or by-products (apart from dairy and farmyard products), is very large. Particulars of the value, as declared upon export, of such products exported oversea from New South Wales during each of the past five years are shown in the following table:—

Commodity.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
Wool £	26,282,052	28,893,682	30,320,197	27,377,890	16,235,892
Meat £	1,177,710	1,301,652	631,711	857,535	1,050,623
Live stock... .. £	68,829	87,270	84,432	102,156	131,780
Other* £	5,634,175	6,207,155	5,594,507	5,392,207	3,855,818
Total £	33,162,766	36,495,759	36,630,847	33,729,788	21,274,113
Proportion of total exports oversea	per cent. 61.4	per cent. 58.1	per cent. 70.60	per cent. 68.3	per cent. 67.5

* Items listed in previous table.

† Excluding specie.

The above figures are not comparable with those relating to the value of production which follow, since they contain items which have been enhanced in value by manufacture and other processes. In addition, they are not valued as at the place of production, but on the basis of f.o.b. Sydney, and they do not relate to goods produced during the year as do the estimates of the value of production.

VALUE OF PASTORAL PRODUCTION.

It is difficult, from the nature of the industry, to estimate the return from pastoral pursuits as at the place of production; but, taking the Sydney prices as a standard, and making due allowance for incidental charges, such as railway carriage or freight and commission, the farm value of pastoral production from the different kinds of stock during various years since 1901 are shown in the following table:—

Year.	Annual Value of Pastoral Production (000 omitted).							
	Wool.	Sheep.		Cattle.		Horses (cast).	Total.	Per head of Population.
		Slaught- ered.	Export and Increase.	Slaught- ered.	Export and Increase.			
	£	£	£	£	£	£	£	£ s. d.
1901	8,425	2,071	...	1,229	...	722	12,447	9 2 1
1906	13,792	3,514	...	1,520	...	885	19,711	13 5 6
1911	14,085	2,811	...	1,689	...	2,001	20,586	12 7 3
1915-16	13,298	4,295	...	3,729	...	2,172	23,494	12 8 1
1920-21	13,023	2,313	...	2,973	...	2,027	20,336	9 14 7
1921-22	15,557	4,144	...	3,278	...	2,041	25,020	11 15 2
1922-23	23,048	6,766	...	4,912	...	2,057	36,783	16 18 6
1923-24	28,209	5,446	...	4,117	...	2,003	39,775	18 0 1
1924-25	34,073	4,752	...	5,365	...	1,838	46,028	20 8 9
1925-26	26,223	4,323	7,139	4,816	(—) 580	443	42,369	18 8 10
1926-27	33,234	4,747	4,604	5,037	(—) 240	440	47,822	20 7 4
1927-28	33,874	5,078	2,771	5,023	(—) 1,807	468	45,407	18 18 3
1928-29	30,879	4,541	2,500	5,876	(—) 547	452	43,701	17 17 1

In 1925-26 items of production formerly omitted were included in terms of resolutions carried at the Conference of Statisticians (1926). These items represented the value of the natural increase in sheep and cattle plus the value of exports and minus the value of imports of live animals at appropriate prices. In view of the diminution of horse-breeding the method of calculating the value of the cast was revised, and this led to a substantial reduction in the total.

NOXIOUS ANIMALS.

The only large carnivorous animals dangerous to stock in Australia are the indigenous dingo, or so-called native dog, and the fox, which has been introduced from abroad; but graminivorous animals, such as kangaroos, wallabies, hares, and rabbits, particularly the last-named which are of foreign origin, are deemed by the settlers even more noxious. In the latter part of 1920, however, native dogs became an increasing menace to flocks in the Western Division, and added considerably to the difficulties experienced by graziers in that region. In 1921 a Wild Dog Destruction Act was passed, placing the matter in the control of the Western Land Board. This board was charged with the maintenance of the border fence between Queensland and New South Wales and with the prosecution of measures calculated to destroy the dingo pest. During the year ended 31st December, 1928, a sum of £4,015 was collected as rates under this Act, and £19,053 was expended; for 1929 the corresponding figures were £3,199 and £8,218 respectively. The pest has been so far checked that it was possible to re-stock with sheep holdings which for some time had been used for cattle only. The rate imposed under the Act has been reduced from $\frac{1}{2}$ d. per acre to $\frac{1}{10}$ d. per acre, and the surplus funds accumulated at the higher rate are now being expended to supplement the annual receipts.

Rabbits.

A brief account of the measures taken to combat the pest was published on page 794 of the Year Book for 1921, and further reference to rabbits was published on page 643 of the Year Book for 1928-29.

The total length of rabbit-proof fencing erected by the State to 30th June, 1929, was approximately 1,332 miles, and the cost £69,888. It is estimated that pastures protection boards erected 992 miles and private owners 138,408 miles, the respective costs being £57,234 and £9,242,639.

The following table shows the quantity and value of frozen rabbits and hares, and of rabbit and hare skins exported from New South Wales to countries outside Australia:—

Year.	Exports Oversea.				
	Frozen Rabbits and Hares.		Rabbit and Hare Skins.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	pairs.	£	lb.	£	£
1901	*	6,158	*	9,379	15,537
1906	5,938,518	246,803	7,380,455	293,260	540,063
1911	6,806,246	330,741	5,795,839	295,476	626,217
1915-16	9,487,687	607,711	4,352,640	210,935	818,646
1920-21	2,830,315	301,615	3,387,480	609,570	911,185
1925-26	3,510,311	340,171	11,004,446	2,231,637	2,571,808
1926-27	2,831,701	257,641	11,860,570	2,437,610	2,694,651
1927-28	2,884,026	262,759	9,316,863	1,886,523	2,149,282
1928-29	1,956,508	193,525	8,225,868	1,950,027	2,143,552
1929-30	2,371,506	214,203	5,817,993	1,042,068	1,256,271

* Not available.

It is apparent that the rabbit industry has assumed an important place in the oversea trade of the State, although its volume is subject to pronounced seasonal and market fluctuations.

Wire-netting Advances.

Under the provisions of the Pastures Protection Act for the destruction of rabbits and noxious animals, the Minister for Lands is empowered to advance to Pastures Protection Boards money voted by Parliament for the purchase of netting and other materials used in the construction of rabbit-proof fences. Each board thereupon becomes liable to repay the advances by instalments with interest over a period not exceeding twenty years. In case of default in repayment the Colonial Treasurer is empowered to take possession of any moneys or property vested in the board and to levy rates as prescribed by the Act. The boards are empowered to sell such wire-netting and other materials to owners of private lands, repayments to be made by instalments with interest over a fixed period. The purchase money and interest is a charge upon the holding of the owner, and has priority over all debts other than debts due to the Crown.

The amount of wire-netting supplied to any individual is limited to 5 miles, and the rate of interest on advances is fixed at 6 per cent.

During 1928-29 the quantities of material supplied to landholders under this scheme were 1,325 miles of wire-netting, 175 tons fencing wire, 80 tons barbed wire, in addition to sundry materials, the total value being £62,781. Repayments during the year amounted to £79,718. A sum of £470,000 has

been voted by Parliament since 1905 for the purpose of making wire-netting advances. By utilising this sum and re-advancing moneys repaid the Department of Lands has made advances amounting to £1,017,629.

The amount outstanding in respect of advances made by the State was £362,225 at 30th June, 1929.

In terms of the Advances to Settlers Act, 1923, a trust fund was established by the Commonwealth, from which advances for the purchase of wire-netting may be made to the States. The wire-netting is then supplied to the settlers at such price and upon such terms as are prescribed by regulation. During the year 1928-29 approval was given for a supply of wire-netting at a cost of £194. The total expenditure under this Act to 30th June, 1929, was £52,921, and the repayments amounted to £15,877.

PASTURES PROTECTION BOARDS.

For the purpose of administering the Pastures Protection Act which relates to destruction of rabbits and noxious animals, diseases of sheep, importation of sheep, travelling stock, sheep brands and marks, and certain minor matters, the State is divided into 63 Pastures Protection Districts, for each of which there is constituted a board of eight directors, elected every three years by ratepayers from among their own number. There is also a Chief Veterinary Surgeon, appointed by the Governor, besides other inspectors, similarly appointed, who are paid from the funds of the Pastures Protection Districts to which they are attached. Each director of a board is *ex officio* an inspector in certain matters under the Act.

Rates to provide funds for the purposes of the boards are levied upon owners of ten or more head of large stock, or 100 or more sheep, at a rate not exceeding fourpence per head of large stock and two-thirds of a penny per head of sheep, but a reduction of one-half is made to occupiers of holdings which are considered rabbit-proof. Subsidy in respect of public lands may be paid to any board by the State. The funds so raised may be applied by the board to defraying expenses incurred in administering the Act, to clearing scrub, exterminating noxious weeds and noxious animals on travelling stock and camping reserves; and to any other approved purpose. In addition, the Governor may call upon the boards in any year to pay a proportion not exceeding 3 per cent. of their funds into the Treasury to cover the cost of administering the Act.

Since 1918 the boards have levied rates on travelling stock in the Eastern and Central Divisions to constitute a fund for the improvement of travelling stock and camping reserves handed over to the board's supervision.

The boards are empowered also to erect rabbit-proof fences as "barrier" fences wherever they deem necessary, to pay a bonus for the scalps of animal pests, and to enforce the provisions for the compulsory destruction of rabbits.

REGISTRATION OF BRANDS.

The Registration of Stock Brands Act, which came into force on 13th December, 1921, cancelled the registration of all existing brands and provided for re-registration of those which owners desired to retain, upon application being made within a prescribed period. The Act was amended in 1923. Of approximately 143,000 registered large stock brands in existence at the time of passing the principal Act, 43,229 were re-registered, and to the end of 1929 additional applications to the approximate number of 23,623 had been registered, making the total number at that date 66,852.

Excluding transfers and cancellations, etc., the number of individual brands was approximately 66,000. Brands for large stock may be used either on cattle or horses, and a current registered brand may not be re-issued in the State.

Sheep brands, of which the registrations are approximately 40,500, are issued for Pastures Protection Districts and may not be duplicated in any one District; similar brands may however be issued in different Pastures Protection Districts.

CATTLE TICK ERADICATION.

In the cattle districts of the north-east corner of the State, embracing the most productive dairying districts, the menace of the cattle tick has been growing steadily for a number of years, despite the methods adopted to combat it. The first Act dealing expressly with this pest was passed in 1902, giving power to inspectors to deal with infected cattle by quarantine, disinfection, or destruction.

An Act was passed in 1923 to replace the existing legislation and to give wider powers for the control and eradication of cattle tick and the prevention of other stock diseases. The Act commenced on 14th January, 1924. On 24th April, 1924, a new Board was appointed consisting of a Government officer as chairman, two stock-owners nominated by the Government, and two stock-owners elected by persons affected within the quarantine areas. The cattle examined in 1925-26 numbered 2,503,228, in 1926-27, 2,448,091, in 1927-28, 2,961,277, and in 1928-29, 3,440,000. In the same years the holdings infested numbered 103, 93, 53, and 436 respectively.

In 1926-27 a Cattle Tick Control Commission was appointed to arrange for co-operation between the States of Queensland and New South Wales and the Commonwealth Government in an endeavour to eradicate the pest.

Under the arrangement agreed upon, the Commonwealth Government will contribute one-third of the actual expenditure for tick eradication, up to a maximum of £53,325 per annum. This money is to be expended in New South Wales until the eradication of the cattle tick has been accomplished, and it will then be made available to Queensland in order to enable the campaign to be carried out on an extensive scale in that State. Pending the transfer of operations to Queensland, that State will carry out cleansing work within its borders, and for this purpose is to expend an amount not exceeding £25,000 per annum.

When the work is subsequently transferred to Queensland, New South Wales will continue to contribute to the expenditure at a rate of one-third the amount actually expended in the northern State in cleansing work, but not exceeding £25,000 per annum.

The Commission is to meet at least twice in the year, and its functions are to determine the areas in which the eradication operations shall proceed, methods to be adopted in each area, composition of dipping fluids, the intervals between treatments, the method of application, the condition of the control of stock movements, including straying and unattended stock, the conditions of enclosure of all grazing lands, the location and erection of dips, the general expenditure, and such other matters as are considered essential for eradication.

This co-operative effort will enable tick eradication work to be prosecuted on a more extensive scale than has hitherto been possible.

STOCK DISEASES.

Under the Stock Diseases Act, 1923, the notification of stock suffering from diseases specified by regulation is compulsory. Provision is made under the Act to compel the drafting out of diseased animals, the isolation of infected animals or, where necessary, the quarantining of the stock or the areas where such stock have been depastured.

To prevent the spread of disease power is also given to order the destruction of any live stock, carcase or other portion thereof.

The diseases prescribed by regulation include most of the epizootics prevalent in other parts of the world, some of which are practically unknown in this State, also general diseases such as cancer and tuberculosis.

The number of outbreaks of disease during the year ended 30th June, 1929, is shown below, with the deaths of stock therefrom:—

Disease.	Outbreaks.	Deaths of Stock.		
		Cattle.	Sheep.	Pigs.
	No.	No.	No.	No.
Pleuro-pneumonia contagiosa ...	149	1,238	...	...
Anthrax... ..	24	6	1,103	...
Blackleg... ..	90	...	...	...

Under the tubercle-free dairy herd scheme 46 animals were destroyed, while 1,174 head of cattle were destroyed as being clinically affected by tuberculosis and 137 through cancer. Excluding cattle killed at abattoirs, 536 beasts suffering from actinomycosis were destroyed.

During the year only one outbreak of swine fever occurred.

VETERINARY SURGEONS ACT.

The Veterinary Surgeons Act came into operation on 5th December, 1923, to provide for the registration of veterinary surgeons, and to regulate the practice of veterinary science. A board called the Board of Veterinary Surgeons has been established to administer the Act, which specifies the qualifications for registration and prohibits practice by unregistered persons.

Up to 31st December, 1929, the Board had granted registration to 246 veterinary surgeons.

AUSTRALIAN PASTORAL RESEARCH FUND.

Following upon a resolution passed on 25th June, 1927, at a joint conference of the Australian Woolgrowers' Council and the National Council of Wool Selling Brokers of Australia, an endeavour is being made to raise a fund of £200,000 to promote pastoral research. A voluntary contribution of 2s. per bale of the 1928-29 clip was invited and to June, 1929, the total receipts amounted to £40,284. The Australian Pastoral Research Trust Limited has now been registered as a company with an initial capital of £43,000. The object is to promote the growth, development, and best interests of the pastoral and grazing industry by any means, especially through scientific and economic research relating in particular to stock diseases, animal pests, harmful plant life, and edible plants.

It is proposed to work in close co-operation with existing State and Federal and other scientific institutions, and if necessary to engage or subsidise specialists to deal with particular pastoral problems.

DAIRYING, POULTRY, Etc.

THE natural conditions in parts of New South Wales are highly favourable to the development of the dairying industry. The soil and climate in the coastal portions of the State are suitable for the maintenance of the dairy herds with a minimum of expense and labour, as the rainfall is abundant and the animals do not require housing nor hand-feeding during a long winter, as in cold countries. Natural pasture is generally available throughout the year, and hand-feeding is necessary only in very dry seasons.

Dairying operations in New South Wales are said to have begun during the twenties of last century in the immediate vicinity of Sydney and in the Illawarra districts to supply the population of the metropolis.

The development of dairying as a national industry is, however, comparatively recent, as its progress was slow until the introduction of refrigeration enabled producers to overcome disabilities in manufacturing and distributing perishable dairy products in a warm climate and to export the surplus oversea. Pasteurisation and the application of machinery to the treatment of milk and the manufacture of butter, the development of the factory system, and improvements in regard to ocean transport have enabled production to expand beyond the limits of local requirements, and butter has become an important item of the export trade.

In the drier inland divisions the area devoted to dairying is not extensive, sheep and wheat farming being the main rural industries. In proximity to the centres of population dairy-farming is undertaken to supply local wants, and well-equipped factories have been established in a number of inland centres. Dairying is conducted also on the Murrumbidgee and Hay irrigation areas.

In the Coastal Division 12,229 holdings are used exclusively for dairying, and 3,629 for dairying combined with other purposes. In the other parts of the State, where fodder must be grown for winter feeding, the industry is nowhere extensive, and is conducted usually in conjunction with agriculture and grazing—there being 756 holdings used solely for dairying and 2,224 for dairying in combination with other rural pursuits.

The total area devoted to dairying for the year 1928-29 approximated 4,565,000 acres, of which 4,014,000 acres were in the Coastal Division; of this latter area 1,863,000 acres were in the North Coast and 1,364,000 in the Hunter and Manning divisions.

Most of the native grasses of the State are particularly suitable for dairy cattle, as they possess milk-producing as well as fattening qualities. In the winter the natural herbage is supplemented by fodder crops, such as maize, barley, oats, rye, lucerne, and the brown variety of sorghum, or the planter's friend. Ensilage also is made for fodder, but the quantity made in each year is not large and varies considerably. The area of land devoted to sown grasses has been extended largely during recent years, and in June, 1929, amounted to 2,201,091 acres, of which 2,091,164 acres were in the coastal district. The produce of this land is used mainly as food for dairy cattle. The practice of manuring pastures has been adopted in dairying districts during recent years, and an extension in this direction is anticipated.

A Select Committee of the Legislative Council which investigated the condition of the dairying industry in 1920-21 emphasised the need for a better system of feeding with due regard to conservation of fodder, improvements of pastures, and cultivation of suitable crops. Successful dairying depends mainly on the proper feeding of the cows, and the conservation of fodder as ensilage was recommended for all dairying districts, especially for those areas where the rainfall is irregular. Another recommendation strongly urged by the Committee was the breeding of dairy stock on the lines of practical utility, and it stressed the need for a "better bull" campaign.

SUPERVISION OF DAIRIES AND DAIRY PRODUCTS.

The manufacture, sale and export of dairy products, *i.e.*, milk, condensed milk, butter, cheese, and margarine, are subject to supervision in terms of the Dairies Supervision Act, and the Dairy Industry Act passed in New South Wales in 1901, and December, 1915, respectively, and the Commerce (Trade Descriptions) Act, and the Dairy Produce Export Control Act, passed by the Commonwealth Parliament in 1905 and 1924 respectively. Since 31st January, 1930, the supply and distribution of milk for consumption in the metropolitan area and certain neighbouring municipalities has been placed under the control of the Metropolitan Milk Board, the constitution and functions of which are described in part Food and Prices of this Year Book.

Under the Dairy Industry Act, 1915, dairy factories and stores must be registered, and are under the supervision of State Government inspectors. Cream supplied to a dairy factory must be tested and graded at the factory, and the farmer is paid on the basis of the butter-fat results, or on the amount of butter obtained from his cream. Butter must be graded on a uniform basis and packed in boxes bearing registered brands indicating the quality of the product and the factory where it was produced. The testing and grading at the factory may be done only by persons holding certificates of qualification.

The State has been divided into nine dairying districts, and in each an experienced dairy inspector is appointed to administer the Act and regulations thereunder. He acts as inspector, instructs the factory managers and cream-graders in matters connected with the industry, and advises the dairy-farmers, especially those supplying cream of inferior quality. He also exercises supervision over the quality of butter produced, and may order structural improvements in factory premises. Since 1919 factory premises have been altered extensively, and in numerous cases entirely new buildings have been erected. Usually the number of factories under the supervision of each inspector does not exceed twenty.

Since the Dairy Industry Act came into force the quality of factory butter has shown a marked improvement, and returns of factories showed that for the year ended 30th June, 1930, 96.1 per cent. of the butter made in factories was of choicest grade, 0.7 per cent. was first grade and 3.2 per cent. second grade.

Particulars regarding the supervision of dairies supplying milk for consumption as fresh milk, are shown in the chapter "Food and Prices."

The Dairies Supervision Act, 1901, consolidated laws designed to prevent the spread of disease through the insanitary conditions under which milk and milk products had been handled. Under this law all dairymen and milk vendors are required to register their premises with local authorities

and such premises are subject to the inspection of the authorities. It is illegal for any person to sell milk or milk products produced on unregistered premises. The beneficial effects of this law in relation to public health are referred to in the chapter "Vital Statistics" of this Year Book.

The supervision of dairy products for the oversea export trade is conducted by officers appointed by the Federal Government, under the Commerce (Trade Descriptions) Act of 1905. Since 1st August, 1924, a national brand has been placed on all butter graded for export as choicest quality. This brand consists of the figure of a kangaroo imposed on the boxes as well as the ordinary trade-marks in use. During the year ended June, 1930, 429,327 boxes of butter were examined for oversea export. Of these 336,430 were classed as choicest, 59,090 as first grade, 25,942 as second grade, 6,676 as third grade, and 781 as pastry butter; 408 boxes were prohibited from export. By Statutory Rules issued in November, 1930, the third-grade classification was discontinued.

Australian Dairy Produce Export Control Board.

A description of the constitution and functions of the Board was published on page 650 of the Official Year Book of 1928-29. The activities of the Board extend over many phases of the marketing of Australian butter in the United Kingdom, including ocean transport and guidance of manufacturers in Australia.

The expenses of the Board are defrayed from a fund created by a levy which may not exceed $\frac{1}{8}$ d. per lb. on butter and $\frac{1}{16}$ d. per lb. on cheese exported from the Commonwealth. A levy was imposed on all exports after 1st July, 1925, at the rate of $\frac{1}{16}$ d. per lb. of butter and $\frac{1}{32}$ d. per lb. of cheese; these rates have been reduced to $\frac{1}{20}$ d. and $\frac{1}{40}$ d. respectively.

During its existence the Board has obtained substantial reductions in the rates for marine insurance and freight, in respect of butter and cheese. A further rebate of $2\frac{1}{2}$ per cent. in the rates of freight on butter and cheese shipped to the United Kingdom for the season 1929-30 represented a saving of £8,507. The Board acts in conjunction with other organisations in advertising Australian products throughout the United Kingdom. Its revenue during 1929-30 was £23,227, and the expenditure £21,211, of which £10,000 was for propaganda and advertising.

Dairying Organisations.

Most of the dairy factories of the State are conducted on co-operative principles, and a similar condition exists throughout Australia. This has resulted in the formation of a number of organisations for promoting the interests of the industry, many of which are federal in character. Principal among these is the Ministerial Dairy Council, consisting of the Commonwealth Minister of Trade and Customs and the Minister of Agriculture of each of the States. This Council meets at least once a year to consider matters of policy and future development.

A Stabilisation Committee, consisting of representatives elected by the boards of directors of the butter factories in New South Wales, met for the first time on 3rd April, 1924, to consider ways and means of stabilising prices in the dairying industry.

This Committee has since become part of a Federal organisation—the Australian Stabilisation Committee—and an arrangement known as the "Paterson" scheme was inaugurated on 1st January, 1926, with the object

of stabilising the butter markets in Australia. Under this arrangement butter producers pay a levy on all butter produced, and from the funds thus provided a bonus is paid on butter exported. The levy was originally fixed at 1½d. per lb. and the bonus at 3d. per lb.; but a bonus of 4d. per lb. was paid on butter exported between 12th and 31st December, 1927. In October, 1928, it was decided to increase the levy to 1¾d. per lb. The bonus on butter exported was 4½d. per lb. as from 1st January, 1929, and 3½d. per lb. as from 1st January, 1931. For the year 1928 the levies collected on butter produced in New South Wales, Victoria, Queensland, South Australia, and Tasmania amounted to £1,709,276 and the bonuses paid on butter exported overseas to £1,689,546. The corresponding amounts for 1929 were £2,115,582 and £2,119,193, respectively. The total working expenses were £10,354 and the amount of interest received on deposits £7,066.

A New South Wales Butter and Cheese Exporters' Association, and a Co-operative Dairy Factory Managers and Secretaries' Association have been in existence since 1906.

DAIRY INSTRUCTION.

Educational and experimental work relating to dairying is conducted by the Department of Agriculture at eight of the State experiment farms, and at the Hawkesbury Agricultural College.

The breeds of stud cattle kept at the various farms are as follows:—At Cowra and at Berry, Milking Shorthorn; at Wollongbar, Guernseys; at Grafton and Glen Innes, Ayrshires; at Wagga Wagga and Bathurst Jerseys. At the Hawkesbury Agricultural College a Jersey stud holds a prominent place.

In order to enable factory managers and butter-makers to improve their scientific knowledge, dairy-science schools are held for short terms at different dairying centres, and certificates are given to those who pass examinations in the grading of cream, and in the testing of milk and cream.

During the year 1929-30 there were nine schools and 127 students.

HERD-TESTING.

Three herd-testing units functioned temporarily between 1909 and 1912, and the present herd-testing movement was established with financial and administrative assistance from the Department of Agriculture. In 1913-14, 35,000 cows were tested, but the scheme was interrupted by the war and droughts and was not re-established on a durable basis until 1924-25, when 23,000 cows were under test. The number did not increase appreciably until 1927-28 when the number tested was 43,000, with subsequent increases to 70,000 in 1928-29 and 100,000 in 1929-30. The extension of the practice of herd-testing is enabling the farmers to ascertain the productivity of individual cows, to cull unprofitable animals, and to retain the progeny of those of higher grade.

The scheme provides means of testing ordinary dairy herds and is controlled by the Department of Agriculture, whose officers conduct the tests. The farmers who participate pay an annual fee, and the annual cost of testing, about 6s. per cow submitted, is shared equally by the farmer, the State, and the Commonwealth Government.

The gross expenditure on the scheme in the year ended 30th September, 1929 was £24,790, of which £6,800 was charged to farmers, £6,831 to the Federal Government and the remainder to the Government of New South Wales. The average cost per cow tested was 7s. 1d.

Testing of Pure-bred Stock.

The testing of pure-bred stock for production is carried out under the Australian recording scheme, which is conducted on similar lines in each State of the Commonwealth by its Department of Agriculture. In New South Wales as from 1st January, 1929, the charge was 4s. per cow for each record, which covers a period of 273 days lactation, with an extension to 365 days if desired.

As from 1st October, 1929, records of the tests of pure-bred cows have been compiled in two sections:—(a) The official record of tests conducted under the rules of the Australian scheme, which prescribe that each cow must be milked dry before the monthly test is made; (b) a semi-official or uncertified record of tests when the other conditions of the official scheme have been observed but the cows have not been milked dry under supervision.

These records are limited to cows registered in one of the several Herd Societies of the various breeds.

Unregistered pure-bred cows are grouped with the grade or the ordinary cows, which comprise the majority of the milking herds on registered dairy farms.

DAIRY CATTLE.

In the dairy herds the Shorthorn preponderates. This breed was introduced into the Illawarra or South Coast districts in the early period of dairying, before the Shorthorn had been developed by English breeders into a beef-producing type. By an admixture with other strains, a useful type of dairy cattle, known as the Illawarra, has been developed, and an association has been formed to establish the breed. There is also a large number of Jersey cattle, and the popularity of the breed for the production of butter is increasing. The Ayrshire is well represented in the dairy herds. It is noted for hardness, but is considered as better suited for producing milk for human consumption as fresh milk than for the purposes of butter-making.

The number of cows used for milking in the State in each year since 1920 is shown below:—

As at 30th June.	Cows in Milk at 30th June.		Dry Cows.*	Heifers.*		Average Daily Number of Cows in Milk during Year.
	In Registered Dairies.	Other.		Springing.	Other, over one Year.	
	No.	No.	No.	No.	No.	No.
1920	419,732		277,888	72,311	133,092	511,064
1921	475,785		282,208	86,381	97,368	542,092
1922	414,557	86,665	314,771	68,222	89,872	580,933
1923	404,611	79,525	313,264	63,100	97,787	579,516
1924	418,505	84,680	282,014	71,515	92,421	561,908
1925	457,217	88,567	280,186	68,206	79,674	614,841
1926	472,273	90,336	278,967	59,194	83,731	632,331
1927	462,365	85,674	286,592	51,422	103,266	616,805
1928	465,773	84,731	290,914	53,022	108,397	615,700
1929	482,568	81,797	293,754	49,655	115,413	627,815

* After 1921 these columns relate to cows in registered dairies only.

The basis of classification was improved in 1922 in order to provide the return of separate particulars of the cows in registered dairies, but the figures of each column are substantially comparable with those of preceding years.

During the winter months the number of cows in milk is usually smaller and the number of springing heifers is usually greater than in the summer months, and for those reasons the numbers shown above as at 30th June are not typical of the distribution of cows under the various headings throughout the year.

Dairy Farms and Registered Dairymen.

Under the Dairies Supervision Act, 1901, every person keeping cows to produce milk for sale for human consumption in any form must register his premises and conform to prescribed standards of cleanliness, etc. Many persons so registered, however, conduct operations on a very limited scale.

The following statement shows a comparison for the past seven years of the number of registered dairymen in New South Wales, and the number of holdings of 1 acre and upwards used for dairying operations on a commercial scale:—

Year.	*Registered Dairymen.	† Holdings of one acre and upwards used principally for—				
		Dairying only.	Dairying and Agriculture.	Dairying and Grazing.	Dairying, Grazing and Agriculture.	Total used for Dairying.
1923	22,194	9,222	5,266	2,227	1,642	18,357
1924	21,604	9,191	5,561	1,969	1,756	18,477
1925	21,894	9,499	5,919	1,766	1,990	19,174
1926	21,634	9,766	5,624	1,794	1,734	18,918
1927	21,478	10,075	5,529	1,350	1,892	18,846
1928	21,760	10,118	5,375	1,516	1,755	18,764
1929	21,835	12,985†	2,942‡	1,722‡	1,189‡	18,838

* At 31st December.

† At 30th June.

‡ Basis of Classification amended.

As stated the figures quoted above indicate the principal purposes for which the holdings were used. It is apparent that the great bulk of the dairy farmers specialise in dairying operations. When the quantity of maize or other grain grown is clearly in excess of the amount required for consumption on the farm and the surplus is intended for sale the holding is classed as "agricultural and dairying," although the principal source of income from these and other dual-purpose dairy farms is the dairy. In 1929 the basis of classification was improved so that holdings on which dairying was clearly the predominant activity were placed in the classification "dairying only."

Dairy Factories.

Although there is some seasonal variation, approximately 83 per cent. of the milk production of the State is treated in factories either as cream or whole milk, the balance being sold as fresh milk direct from dairy or used on the farms. Most of the factories are conducted on co-operative principles, with the suppliers as shareholders, and are situated in the country districts at convenient centres. Particulars of the operations of the butter factories are shown on page 378 of this Year Book.

DAIRY PRODUCTION.

The following statement shows the quantities of the principal dairy products in each Division of the State during the year ended the 30th June, 1929:—

Division.	Estimated Yield of Milk.	Butter Made.	Cheese Made.	Bacon and Ham Made.
Coastal—	gallons.	lb.	lb.	lb.
North Coast	129,621,576	*54,996,864	1,109,798	7,022,466
Hunter and Manning	57,461,988	20,692,729	1,079,466	2,321,686
Metropolitan	13,420,026	513,124	10,489	12,121,795
South Coast	37,552,924	9,553,877	3,917,639	475,467
Total	238,056,514	85,756,594	6,117,392	21,941,414
Tableland—				
Northern	5,182,089	1,579,642	5,800	323,171
Central	6,434,904	1,405,877	58,000	118,842
Southern	2,441,344	467,337	280	46,266
Total	14,058,337	3,452,856	64,080	488,279
Western Slopes—				
North	5,510,515	1,934,726	.....	35,588
Central	2,472,722	512,980	250	64,765
South	10,306,488	3,495,217	157,330	165,060
Total	18,289,725	5,942,923	157,580	265,413
Plains—				
North Central	938,980	102,960	.....	5,319
Central	919,418	114,391	.....	12,401
Riverina	4,612,747	861,745	.....	373,608
Total	6,471,145	1,079,096	.....	391,328
Western Division	502,443	12,761	.....	837
Total, New South Wales	†277,378,164	*96,244,230	6,339,052	23,087,271

* Including 906,990 lb. made from cream, the produce of Queensland and Victoria.

† Includes 1,296,430 gallons sent to Interstate factories.

This statement illustrates the importance of the dairying activities in the Coastal Division as compared with the remainder of the State. In this area over 90 per cent. of the cows in registered dairies are depastured, and approximately 85 per cent. of the total output of milk, 90 per cent. of the butter, and 95 per cent. of the cheese are produced. Fifty-seven per cent. of the butter of the State was made in the North Coast division. The Hunter and Manning division is next in importance, then the South Coast, followed by the South Western Slopes. Formerly the South Coast division was the principal dairying region, but in recent years the industry has made rapid progress in the northern districts, where many large estates, used previously for raising cattle for beef, have been subdivided into dairy farms. The manufacture of cheese is of small extent when compared with the manufacture of butter, and more than one-half of the total output is made in the South Coast division. The curing of bacon and ham is confined almost entirely to the Coastal division, where more than 95 per cent. of the output is produced.

Milk.

Particulars of the consumption and supply of milk and milk products are published in the chapter "Food and Prices" of the Year Book.

Cows used for producing milk for sale are inspected by Government officers, who have power to condemn and prevent the use of diseased animals. In 1929 inspections were made of 576,215 dairy cattle, or nearly half of the total herds in registered dairies, and of these 888, or less than two per thousand, were condemned—578 for tuberculosis, 157 for actinomycosis, 120 for cancer, and 33 for other diseases. The standard of milk sold for human consumption is prescribed, the quality of the milk sold is tested frequently, and prosecutions are instituted where deficiencies are found. By these means the purity and wholesomeness of dairy products are protected.

The total yield of milk can be estimated only approximately. Few dairy farmers actually measure the quantity of milk obtained from their cows throughout the year. The majority are concerned principally in producing cream for manufacture into butter. In recent years, however, it has been found possible to make checks against the milk supplied to factories, and results show that the farmers' estimates are approximately correct. In this connection also, the testing of dairy herds has been developed so far as to give a fair indication of the butter-fat contents of the milk.

Average Yield per Cow.

The steps being taken to increase the yield of milk per cow are discussed in the earlier pages of this chapter. While sufficient information is not available to show conclusively the average annual production of milk per cow, a reasonably accurate estimate as to productivity per cow in terms of commercial butter may be obtained if it be assumed (a) that the mean of the number of cows in milk and dry at the beginning and end of any given year represents the average number kept for milking in registered dairies during that year, and (b) that the ascertained butter-fat content of the milk of cows coming under the herd-testing scheme is typical of the dairy cows of the State.

The following table, referring to cows in registered dairies, shows the mean number of cows in milk and the average daily number in milk as returned by the dairy farmers, the proportion in milk and the period of lactation being deduced from these figures:—

Year ended 30th June.			Mean Number of Cows Dry and in Milk.	Average Daily Number of Cows in Milk.	Proportion of Cows in Milk.	Estimated Average Period of Milking during Year.	Estimated Production per Cow: Commercial Butter.
					per cent.	days.	lb.
1924	...	...	709,200	485,342	68·4	250	132·4
1925	...	...	723,461	534,482	73·9	270	190·6
1926	...	...	748,821	549,358	73·4	268	165·4
1927	...	...	750,099	537,502	71·7	262	161 0
1928	...	...	752,822	540,034	71·7	262	166·3
1929	...	...	766,505	553,318	72·2	264	162·9

Use of Milk.

The following statement shows the estimated amount of milk used for various purposes during each of the last three years:—

	1926-27. gallons.	1927-28. gallons.	1928-29. gallons.
Used for butter on farms	14,393,000	14,553,000	13,473,000
„ „ in N.S.W. factories	199,440,000	200,194,000	197,072,000
„ „ interstate ... ..	...	710,000	1,297,000
	<hr/> 213,833,000	<hr/> 215,457,000	<hr/> 211,842,000
Used for cheese made on farms ...	120,000	224,000	134,000
„ „ in factories...	6,742,000	7,494,000	6,589,000
	<hr/> 6,862,000	<hr/> 7,718,000	<hr/> 6,723,000
Used for sweet cream, ice cream, condensing, etc.	5,550,000	6,633,000	6,116,000
Pasteurised for metropolitan and Newcastle markets	17,508,000	19,922,000	20,521,000
Balance sold and used otherwise ...	34,363,000	33,316,000	32,176,000
	<hr/>	<hr/>	<hr/>
Total	278,116,000	283,046,000	277,378,000

An estimate of the quantity of fresh milk used for human consumption is shown in the chapter relating to "Food and Prices."

The milk used for making butter represents 76.4 per cent. of the estimated total production; 2.4 per cent. is used for cheese; 2.2 per cent. for condensed milk, cream, ice-cream, etc.; and the balance—19 per cent.—is consumed as fresh milk or used otherwise.

In recent years it has become the practice to instal hand or small power separators on each farm. A census of individual holdings showed that the number of farms with power separators in 1928-29 was approximately 4,680. Thus the farmers have been able to effect great economy of time and labour, as the cream need not be taken to the factory at such frequent intervals as formerly, and considerable advantage is derived by the supply of freshly separated milk for the farm stock.

In the year ended 30th June, 1929, the number of power-driven milking machines in use on dairy farms was 2,105.

Preserved Milk.

Various kinds of preserved milk and milk foods are produced in New South Wales, *e.g.*, sweetened condensed milk, unsweetened condensed milk, concentrated milk, and powdered milk, etc.

During the war period there was great progress in the manufacture of preserved milk, and the output was increased from 3,682,800 lb. in 1913 to 14,938,100 lb. in 1920-21. Since that year there has been an amalgamation of the companies engaged in the manufacture of preserved milk products in Australasia and some of the factories in New South Wales have been closed.

The quantity made in 1926-27 was 6,315,621 lb., valued at £304,251. The results for later years are not available for publication.

Butter.

The following statement shows the quantity of butter made annually at intervals since 1901. The butter made in factories and the total butter made include for the year 1926-27, 698,356 lb., for 1927-28, 800,520 lb., and for 1928-29, 906,990 lb., made from cream produced in other States.

Year ended 30th June.	On Farms.	In Factories.	Total.	Year ended 30th June.	On Farms.	In Factories.	Total.
Thousand lb. (000 omitted.)							
1901*	4,775	34,282	39,057	1924	4,654	68,030	72,684
1906*	4,637	54,304	58,941	1925	4,706	112,505	117,211
1911*	4,632	78,573	83,205	1926	5,270	101,698	106,968
1916	4,258	55,374	59,632	1927	4,825	91,727	96,552
1921	4,388	79,880	84,268	1928	4,888	96,707	101,595
1922	4,978	95,695	100,673	1929	4,511	91,733	96,244
1923	4,469	69,255	73,724	1930	‡	100,761†	‡

* Calendar year.

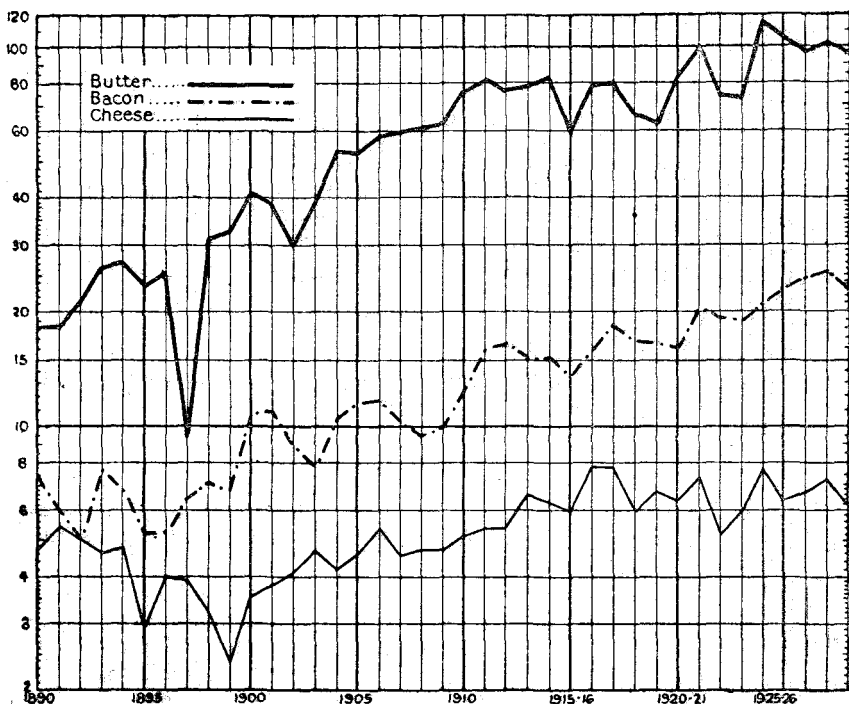
† Subject to revision.

‡ Not yet available.

The production of butter in factories has been maintained for six years past above 90,000,000 lb. per annum—a level which hitherto had seldom been attained.

DAIRY PRODUCTION, 1890 to 1923-29.

Ratio graph.



The numbers at the side of the graph represent 1,000,000 lb.

The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise or fall according to the rate of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

External Trade in Butter.

Particulars of the external trade in butter during each of the past four seasons are summarised in the following statement:—

Particulars.	1926-27.	1927-28.	1928-29.	1929-30.
Imports:—	lb.	lb.	lb.	lb.
Interstate	4,127,284	5,288,164	5,311,348	3,748,276
From New Zealand	4,271,512*	4,682,229*	61	434
Total Imports	8,398,796	9,970,393	5,311,409	3,748,710
Exports:—				
Interstate	6,658,400	6,215,020	5,025,944	5,087,208
Oversea—Australian produce	17,753,508	20,820,334	15,455,928	19,916,913
New Zealand produce	195,347	...	...	...
Ships' Stores—Australian produce... ..	535,659	527,689	423,696	411,240
New Zealand produce	492	...	...	...
Total Exports	25,143,406	27,563,043	20,905,568	25,415,361
Excess of Exports	16,744,610	17,592,650	15,594,159	21,666,651

* Includes 450 lb. from Denmark in 1926-27, and 1,302 lb. from various countries in 1927-28.

In 1926-27 and 1927-28 imports from New Zealand increased very substantially owing to the high prices prevailing in the Sydney market, but in the latter year the duty on New Zealand butter imported into Australia was increased from 2d. to 6d. per lb., while the general tariff on butter was increased from 3d. to 7d. per lb. Interstate imports increased substantially from 1926 to 1929, but have decreased latterly.

Production and Exports of Butter Monthly.

The following table shows for each month during the four seasons ended 30th June, 1930, the quantity of butter produced in factories in New South Wales in comparison with the quantity exported overseas from New South Wales. Butter may be stored for a considerable period before export, and the figures for production and export each month do not necessarily refer to the same butter. The export figures relate to Australian produce.

Month.	Quantity of Butter Produced in Factories.				Quantity of Butter Exported Oversea (Australian Produce).			
	1926-27.	1927-28.	1928-29.	1929-30.	1926-27.	1927-28.	1928-29.	1929-30.
Thousand lb.								
July	4,958	3,834	4,136	4,475	471	201	224	229
August	5,462	3,753	4,631	4,178	1,235	128	313	92
September	6,623	3,789	6,086	5,655	938	109	697	309
October	8,299	5,827	8,250	8,620	1,283	42	1,583	910
November	7,432	8,953	7,808	10,933	1,788	1,289	1,644	3,208
December	6,689	12,010	7,336	10,153	410	2,955	833	3,913
January	11,466	12,402	8,483	11,257	2,622	4,923	1,131	3,135
February	11,078	11,694	9,785	11,227	5,098	3,973	3,171	4,075
March	10,347	11,620	12,090	11,622	2,523	2,108	2,916	2,883
April	8,357	9,692	10,273	9,604	613	1,475	2,468	1,027
May	6,659	7,813	7,781	7,514	574	2,466	447	382
June	4,616	5,232	5,087	5,523	198	1,201	336	254
Total	91,986*	96,619*	91,746*	100,761*	17,753	20,820	15,763	19,917

* Compiled from monthly returns of Dairy Branch. The totals differ slightly from those published elsewhere in this volume.

These monthly records show the pronounced seasonal nature of the production, with the consequent monthly variations in the volume of exports. Production increases in a marked degree during the summer months and decreases during the winter, reaching a minimum usually in July.

Usually more than 80 per cent. of the butter exported oversea from New South Wales is sent to the United Kingdom, the remainder being sent mainly to countries bordering the Pacific Ocean.

The principal sources from which butter was imported into Great Britain and Northern Ireland during each of the last five years are shown below:—

Year ended June.	Imports of Butter into Great Britain and Northern Ireland from—					
	Australia.	New Zealand.	Denmark.	Argentina.	Other Countries.	Total Imports.
	tons.	tons.	tons.	tons.	tons.	tons.
1926	40,454	51,138	89,732	24,685	72,383	278,392
1927	30,216	56,534	97,795	26,498	77,596	283,639
1928	33,582	67,343	100,349	17,921	84,552	303,747
1929	43,116	64,636	105,162	17,034	87,527	317,475
1930	41,158	65,496	111,925	15,706	89,377	323,662

Prices of Butter.

The average monthly wholesale prices of butter in Sydney and London markets during each of the past four seasons are shown below:—

Month.	Average Price in Sydney of Choicest Butter per cwt.				Average Top Price in London of Australian Butter per cwt.			
	1926-27.	1927-28.	1928-29.	1929-30.	1926-27.	1927-28.	1928-29.	1929-30.
	s.	s.	s.	s.	s.	s.	s.	s.
July ...	196	201	191	205	169	162	173	167
August ...	196	209	196	205	170	169	173	168
September	189	224	196	205	161	178	173	175
October ...	173	221	195	205	146	176	172	178
November	168	189	188	194	144	173	173	173
December	184	179	202	190	170	164	182	161
January ...	186	178	210	187	173	157	184	153
February ...	179	168	208	184	170	159	181	146
March ...	170	172	197	177	156	167	168	135
April ...	170	177	196	177	155	162	160	125
May ...	183	177	200	179	160	158	161	129
June ...	197	178	205	182	166	164	165	130

The prices quoted in the table for Sydney and London respectively may not be used to estimate the difference between the actual selling price in Sydney and the local parity of London prices. The Sydney price is an average of daily prices and relates to the official price of butter of choicest quality. No account is taken of under-selling such as has occurred through the incidence of interstate competition. On the other hand the London prices are the mean of the top prices quoted weekly in the *Statist* for Australian butter, but owing to the smallness of supplies at certain periods these prices are more or less nominal. Usually there are appreciable quantities of Australian butter on London markets for only about half the year, viz., from November to May inclusive. Owing to the operation of the "Paterson" stabilisation scheme, which is explained on a previous page, the prices quoted do not indicate the incidence of market fluctuations on gross returns to producers and their organisations.

The cost of marketing butter in London varies from time to time in accordance with changes in rates of ocean freight, exchange, insurance, handling and other charges. During 1927-28 the amount of such charges was approximately 18s. per cwt.

The average price paid to suppliers of cream to local factories was as follows in recent years:—1921-22, 1s. 1.9d.; 1922-23, 1s. 6.9d.; 1923-24, 1s. 4.6d.; 1924-25, 1s. 1d.; 1925-26, 1s. 3.8d.; 1926-27, 1s. 4.2d.; 1927-28, 1s. 4d. and in 1928-29, 1s. 5.1d. per lb of commercial butter manufactured. These payments include amounts deferred from the previous year, and they do not relate exactly to the financial year.

Cheese.

Excellent conditions exist in New South Wales for the production of cheese, but cheese-making has not advanced to the same extent as the manufacture of butter, the latter being more profitable.

The industry is retarded by the great disadvantages of cheese as an article of export. It matures quickly and after a short period depreciates in value. Unlike butter it cannot be preserved satisfactorily by freezing. Moreover, cheese represents little more than half the money value of butter for the same weight, while the cost of freight is practically the same. At present, however, sufficient cheese is not produced in New South Wales to supply local requirements, and during 1928-29 approximately 2,837,000 lb. were imported from other Australian States, while 255,603 lb., valued at £22,611, were imported from countries outside the Commonwealth. The quantity exported overseas during the year was 229,283 lb., valued at £11,838, inclusive of ships' stores, and in 1929-30 219,383 lb., valued at £11,624.

From a previous table showing the cheese made in the various divisions of the State, it will be seen that more than half of the total production during the 1928-29 season was made in the South Coast division.

The following table shows the production of cheese in factories and on farms and the import and export of cheese from New South Wales at intervals since 1901:—

Year ended 30th June.	Production.			Import.		Export.
	In Factories.	On Farms.	Total.	Overseas.	Interstate.	Overseas.
	lb.	lb.	lb.	lb.	lb.	lb.
1901*	2,423,599	1,410,236	3,838,835	1,862,000	399,000	191,000
1906*	3,459,641	1,999,004	5,458,645	115,000	359,000	133,600
1911*	4,617,387	843,265	5,460,652	129,000	†	141,400
1916	4,969,374	1,010,262	5,979,636	479,000	†	301,200
1921	5,965,715	441,494	6,407,209	31,000	†	806,700
1926	6,321,111	141,424	6,462,535	736,000	1,288,000†	284,000
1927	6,628,000	107,960	6,735,960	560,000	1,313,000†	180,300
1928	7,081,000	203,630	7,284,630	506,000	3,500,000	223,900
1929	6,203,409	135,643	6,339,052	255,600	2,924,000	229,300
1930	†	†	†	216,100	4,097,000	219,400

*Calendar year. † Not available. ‡ Excluding imports by rail.

The annual output of cheese has shown no permanent expansion in the past fifteen years. The maximum production was reached in 1916-17, when the total reached 7,830,239 lb. Cheese-making on farms was formerly extensive, but declined appreciably between 1916 and 1924. Practically the whole of the cheese produced for sale is now made in factories.

PIGS.

The breeding of pigs is conducted usually on dairy farms, where a large supply of separated milk is available for fattening the stock. They are reared also in agricultural districts, where special crops of maize, peas, etc., are grown as fodder for them.

The following table shows the number of pigs in New South Wales at intervals since 1891:—

At 31st December.	Pigs.	At 30th June.	Pigs.
	No.		No.
1891	253,189	1921	306,253
1896	214,581	1922	383,669
1901	265,730	1923	340,853
1906	243,370	1924	323,196
1911	371,093	1925	339,669
1916*	281,158	1926	382,674
1918*	396,157	1927	332,921
1919*	294,648	1928	301,819
1920*	253,910	1929	311,605

* As at 30th June.

In 1918 the number, 396,157, was the highest on record, but it declined owing to adverse seasons in 1919 and 1920. There was a substantial increase in 1921, and again in 1926, but the number diminished in 1927 and 1928, owing largely to an outbreak of swine fever. The extent of pig breeding, however, is not accurately reflected in variations in the number of pigs at the end of the year, but rather by the extent of slaughtering in conjunction with increase or decrease in numbers. Comparison of two periods of four years are shown below:—

Year ended 30th June.	Increase (+) or Decrease (—).	Number Slaughtered.	Year ended 30th June.	Increase (+) or Decrease (—).	Number Slaughtered.
1922 ...	(+) 77,416	336,369	1926 ...	(+) 43,005	402,479
1923 ...	(—) 42,816	339,658	1927 ...	(—) 49,753	461,981
1924 ...	(—) 17,657	302,733	1928 ...	(—) 31,102	412,424
1925 ...	(+) 16,473	361,065	1929 ...	(+) 9,786	406,187
Totals ...	(+) 33,416	1,339,825	Totals ...	(—) 28,064	1,683,071

At 30th June, 1929, the pigs less than one year old numbered 228,316, and the pigs aged one year and over 83,289; these latter consist mainly of breeding stock.

The following statement shows the number of pigs in various divisions of the State, and the production of bacon and ham in 1928-29 as compared with the years 1911 and 1920-21:—

Division.	1911.		1920-21.		1928-29.	
	Pigs.	Bacon and Ham cured.	Pigs.	Bacon and Ham cured.	Pigs.	Bacon and Ham cured.
	No.	lb.	No.	lb.	No.	lb.
Coastal ...	255,361	13,845,520	208,903	14,781,094	259,421	21,941,414
Tableland ...	45,578	1,124,091	29,700	597,872	17,837	488,279
Western Slopes ...	42,258	666,173	39,599	422,712	23,920	265,413
Other ...	27,896	467,043	28,051	455,564	10,427	392,165
Whole State ...	371,093	16,102,827	306,253	16,257,242	311,605	23,087,271

This table shows that the production of bacon has increased since 1911 in the dairying districts of the Coastal Division, and 95 per cent. of the total

production of bacon in 1928-29 was cured in these districts. In the Tableland Division there has been a marked decline in pig-raising, and little or no progress has been made in other parts of the State.

Interstate Movement of Pigs.

The introduction of pigs from other States is closely regulated in order to prevent the spread of the various diseases current among these animals, and, on the whole, few pigs are brought into the State except for slaughtering in adverse seasons. Until 1927-28 there was usually a net export of pigs from New South Wales to Queensland, but in that year the net import into New South Wales was 2,240. This number increased in 1928-29 to 7,192, and in 1929-30 to 19,568. In the same three years there was a net export of 2,431; 4,396, and 3,430 pigs from New South Wales to Victoria.

Bacon and Hams.

The output of bacon and hams from factories and farms in New South Wales and the net interstate imports at intervals since 1901 is shown hereunder:—

Year ended 30th June.	Pr oduction of Bacon and Ham.			Net Import of Bacon and Ham Interstate.
	Factory.	Farm.	Total Production.	
	lb.	lb.	lb.	lb.
1901*	7,392,100	3,688,800	11,080,900	1,216,700
1911*	13,393,500	2,709,300	16,102,800	†
1916	11,637,900	1,938,700	13,576,600	†
1921	14,625,800	1,631,400	16,257,200	†
1922	18,544,067	1,878,803	20,422,870	†
1923	17,506,343	1,739,523	19,245,866	†
1924	17,693,376	1,358,733	19,052,109	6,700,000
1925	19,764,983	1,311,813	21,076,796	8,800,000
1926	21,548,888	1,409,483	22,958,371	9,500,000
1927	23,275,890	1,327,175	24,603,065	8,000,000
1928	24,523,873	955,335	25,479,208	8,000,000
1929	22,340,106	747,165	23,087,271	8,300,000

* Calendar year. † Not available.

The net import of bacon and ham interstate was 9,900,000 lb. in 1929-30.

During the first decade of the period under review the production of bacon showed a substantial increase. The production in 1920-21 was only slightly higher than in 1911, but the output in the last seven years has been much greater, and in 1927-28 it exceeded 25,000,000 lb. for the first time. The increased production, coupled with large imports since 1925-26, has been reflected in increased consumption of bacon and ham as shown in part "Food and Prices" of this Year Book.

Lard.

Statistics showing the total production of lard are not available. During the year ended 30th June, 1929, the quantity extracted in factories amounted to 590,819 lb., valued at £21,553; but as the manufacture of this product is conducted in many other establishments, as well as on farms, this quantity represents only a portion of the total output.

During the twelve months ended 30th June, 1930, the oversea exports of lard and refined animal fats amounted to 169,905 lb., valued at £6,054, as compared with imports from oversea countries amounting to 64,860 lb., valued at £1,748.

LOCAL CONSUMPTION OF DAIRY PRODUCTS.

The local consumption of dairy products in New South Wales is comparatively high. The average consumption per head in 1928-29 was as follows:—Fresh milk 21 gallons, preserved milk 6.9 lb., butter 34.5 lb., cheese 3.9 lb., bacon and ham 11.8 lb. The quantities of these products required for a normal year in New South Wales are approximately 52,000,000 gallons of fresh milk, 15,000,000 lb. to 17,000,000 lb. of preserved milk, 86,000,000 lb. of butter, 10,000,000 lb. of cheese, and 30,000,000 lb. to 33,000,000 lb. of bacon and ham. Comparison with the figures on the foregoing pages shows that the State is self-supporting in regard to milk and butter, and that portions of the supplies of cheese and bacon are imported—generally from the other States of the Commonwealth. During the summer months, when production is at a maximum, a quantity of butter is placed in cold storage in order to ensure an adequate supply during the winter. This matter is treated more fully in the chapter relating to "Food and Prices."

EXPORTS OF DAIRY PRODUCTS.

Dairy products for export beyond the Commonwealth are subject to inspection by Federal Government officials under the provisions of the Commerce Act, 1905, and the exportation of inferior products is prohibited unless the goods are labelled as below standard. Since August, 1925, the export of butter and cheese has been supervised by the Dairy Produce Export Control Board, of which particulars are given on an earlier page.

The following table shows the overseas exports of the principal dairy products from New South Wales, inclusive of ships' stores, at intervals since 1891. The particulars for 1906 and earlier years relate to New South Wales produce only, but in later years the figures include a small quantity of the produce of other Australian States. New South Wales produce exported through other States is excluded from account:—

Year ended 30th June.	Oversea Exports (including Ships' Stores).							
	Butter.		Cheese.		Milk—Preserved, Condensed, etc.		Bacon and Ham.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb. (000)	£	lb. (000)	£	lb. (000)	£	lb. (000)	£
1891*	11	478	18	411	...	...	9	380
1896*	1,912	75,994	45	821	8	156	40	994
1901*	8,700	379,342	174	4,359	196	2,525	96	3,607
1906*	23,362	978,725	123	3,268	258	4,906	141	4,996
1911*	33,044	1,518,993	127	3,723	1,127	17,471	618	17,561
1916	4,306	259,834	191	9,767	947	22,052	224	11,279
1921	28,429	3,458,280	804	49,813	11,576	691,122	1,357	132,075
1922	36,730	2,327,080	629	26,565	3,634	203,483	1,053	80,641
1923	12,883	1,035,186	293	14,319	688	33,119	757	57,406
1924	10,266	778,963	156	8,902	742	37,382	545	45,170
1925	44,727	2,968,525	878	29,514	647	26,999	766	52,724
1926	27,008	1,943,586	259	12,321	656	26,513	790	61,681
1927	18,485	1,292,737	220	11,714	558	22,172	1,143	86,008
1928	21,348	1,429,716	224	10,764	816	28,917	830	68,161
1929	15,880	1,192,141	229	11,833	477	19,446	612	48,883
1930	20,328	1,443,851	219	11,624	452	18,222	520	39,585

* Calendar year.

The values of other dairy and farmyard products exported overseas in 1928-29 were as follows:—Frozen pork, £5,678; frozen poultry, £11,971; eggs, £66,944; live pigs and poultry, £2,146, making a grand total of £1,359,047, including the items listed above. The total in 1927-28 was £1,586,941, and in 1929-30 to £1,659,078.

POULTRY-FARMING.

Poultry-farming was conducted formerly in conjunction with dairying; but the interests involved have become important commercially, and a distinct industry has been developed. Returns collected as at 30th June, 1929, showed that there were 1,259 holdings of one acre or more in extent devoted mainly to poultry-farming, besides forty-four to poultry, bees, and pigs combined. In addition many holdings less than 1 acre in extent, and therefore not included in these returns, are used for raising poultry as a commercial pursuit, while many farms, utilised mainly for agriculture, dairying or grazing, also carry large numbers of poultry. The returns showed that at 30th June, 1929, there were 2,124 holdings over 1 acre in extent carrying poultry for commercial purposes to the extent of 150 head or more. Of these 1,328 were in the County of Cumberland and 552 in other coastal districts.

Accurate statistics of poultry production are not available, but a general estimate based on accessible returns indicates that the value of production during 1928-29 was approximately £3,086,000. The returns showed that approximately 1,474,000 poultry were marketed for food during the year 1928-29.

Special attention is devoted to improving the laying qualities of the different breeds, and egg-laying competitions, organised originally by private subscriptions, have been conducted since 1901 at the Hawkesbury Agricultural College, with the object of stimulating the poultry industry. These competitions have attracted widespread interest among poultry-farmers. The most successful laying strains have proved to be the black orpington, the white leghorn and the langshan. An annual report in bulletin form, giving particulars and tabulated results of these competitions, is issued by the Department of Agriculture.

The numbers of poultry enumerated in returns supplied annually under the Census Act are as follow:—

As at 30th June.	Fowls, Chickens, etc.	Ducks, etc.	Geese, etc.	Turkeys, etc.	Guinea Fowl and other.
1921	3,260,000	122,000	18,000	119,000	4,900
1922	3,630,000	159,000	22,000	154,000	3,800
1923	3,600,000	142,000	20,000	136,000	3,800
1924	3,670,000	139,000	17,000	148,000	4,300
1925	4,000,000	159,000	19,000	162,000	4,600
1926	4,020,000	156,000	21,000	159,000	6,300
1927	4,002,000	131,000	20,000	148,000	5,100
1928	3,968,000	123,000	17,000	147,000	6,900
1929	3,919,000	120,000	16,000	130,000	5,700

Included in the figures are estimates (made by local collectors) of the number of poultry on holdings less than one acre in extent and on householders' premises, but these estimates are probably far from complete. The numbers stated afford some guidance as to the growth of the industry in recent years, but in view of the great difficulty of obtaining accurate records they are probably considerably less than the numbers of poultry in the State. In order to provide data upon which to measure the extent and expansion of the poultry industry, special returns were collected for the year 1928-29 in respect of 2,124 commercial poultry farms representing those which marketed products from 150 or more fowls. Owing to the limitations of the Census Act holdings less than 1 acre in extent were necessarily omitted, and the figures therefore must be regarded as incomplete to the extent that commercial poultry farming is carried on on holdings of less than 1 acre. There were on these 2,124 farms 1,400,000 fowls (inclusive of 300,000 under six months old) representing about one-third of the recorded number of fowls in the State. During the year ended 30th June, 1929, the number of eggs gathered on these farms was 10,636,000 dozen and 596,000 head of poultry were disposed of for table purposes. The number of chickens hatched was 1,649,000, inclusive of 658,000 sold as day-olds and 991,000 for farm stock.

The number of poultry recorded as disposed of for table purposes from holdings not classed as commercial poultry farms was 816,000 in 1928-29, making a total for the whole State (so far as recorded) 1,412,000 head as compared with 1,439,000 in 1927-28 and 1,349,000 in 1926-27.

Price of Eggs.

The average monthly prices of new-laid hen eggs in Sydney since 1925 are shown in the following table:—

Month.	1925.	1926.	1927.	1928.	1929.	1930.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January ...	1 7-2	1 5-3	1 9-0	1 8-5	1 7	1 7-2
February ...	1 10	1 9-1	2 0-7	1 11-9	2 0	1 8-9
March ...	2 2-1	2 3-2	2 2-7	2 7-2	2 1	2 0-5
April ...	2 6	2 8-1	2 8-2	2 8	2 6	2 5-4
May ...	2 9	2 9	2 9-0	2 9	2 9	2 6
June ...	2 8-1	2 6-5	2 9-0	2 8-4	2 5	2 3-2
July ...	1 11-4	1 9	1 11-2	2 0-1	1 10	1 7-3
August ...	1 4-3	1 6-8	1 7-2	1 5-6	1 6	1 2-6
September ...	1 4	1 5-2	1 6	1 5-1	1 4	1 2
October ...	1 2-6	1 5-6	1 6	1 6	1 4	1 1-1
November ...	1 4-9	1 6-7	1 7-6	1 6	1 4	1 1-6
December ...	1 7-2	1 8-6	1 10	1 6	1 6	1 5

The averages are unweighted and represent the mean of the daily quotes. Prices are also quoted for medium and pullet eggs, but these are not included above.

Oversea and Interstate Trade.

The following table shows the recent trend of the oversea export trade in poultry and eggs:—

Year ended 30th June.	Eggs in Shell.		Frozen Poultry.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	doz.	£	pairs.	£	£
1923	1,049,117	86,122	31,748	41,157	127,279
1924	574,212	47,835	7,493	9,323	57,158
1925	627,473	49,059	7,705	12,182	61,241
1926	802,421	63,833	10,928	23,300	87,133
1927	1,839,046	137,808	18,892	29,681	167,489
1928	447,996	34,660	6,453	7,600	42,260
1929	858,795	66,893	8,050	11,971	78,864
1930	1,627,367	123,443	11,445	15,545	138,988

Approximately 2,350,000 dozen eggs were exported oversea from New South Wales in the six months ended 31st December, 1930.

Particulars as to the interstate import of eggs by rail and sea are now collected by the Director of Marketing and a summary of these is provided below in respect of the year ended 30th June, 1930:—

State Whence Imported.	Eggs in Shell.			Eggs (Pulp).
	By Rail.	By Sea.	Total.	By Sea.
	doz.	doz.	doz.	cub. tons.
Victoria	188,190	678,880	867,070	142
Queensland	1,045,130	30,670	1,075,800	412
South Australia	11,970	78,730	90,700	967
Western Australia ... ..	.....	...	.....	...
Tasmania ... ..	.....	37,800	37,800	1
Total	1,245,290	826,080	2,071,370	1,462

Accurate information as to the numerical equivalent of egg pulp imported is not at present available, but it is apparently in the vicinity of 1,000 dozen per cubic ton. In the six months ended 31st December, 1930, the interstate import of eggs in shell was 964,960 dozen and 341 tons of egg pulp.

Egg Marketing Board.

On 21st September, 1928, a poll of poultry farmers was taken as to the constitution of an Egg Marketing Board for a defined area embracing the counties of Cumberland and Northumberland and the shires of Nattai

and Wollondilly. The Board consists of three members elected by producers and two nominated by the Government. Active operations commenced on 27th May, 1929.

Unless exempted by the board, all persons having more than twenty head of poultry in the defined area were required to market their eggs through authorised agents, of whom there were 14 operating during the year. Exemptions were granted to approximately 4,540 poultry farmers to supply the whole or part of their eggs for local needs and private contracts. In the case of exemptions, monthly declarations are made that eggs have not been sold at prices below those fixed by the board. As from 1st July, 1930, the system of authorised agents was discontinued and all eggs (except those exempt) were required to be consigned to the Egg Board's floor and exempt producers were licensed as "producer agents."

The board's operations are financed by a levy on eggs distributed, the charge being 1d. per dozen, of which approximately one-tenth was absorbed in administration and nine-tenths for equalisation purposes.

During the year ended 30th June, 1930, a sum of £52,016 was collected as levy, and of this sum £45,895 was returned to the producers in the maintenance of one fixed price for every producer each week of the year; the balance was absorbed in the Board's administrative expenses.

117,400 dozen eggs were placed in cold storage by the Board and surplus medium grade eggs were converted into 22,583 lb. pulp. 1,650,000 dozen eggs were shipped oversea by the Board in the three months ended 11th November, 1929, the average realisation being 1s. 1½d. per dozen net to producers.

The total number of eggs handled under the Board's administration in the year ended 30th June, 1930, was 14,232,310 dozen, with a gross value of £1,087,190. Of these, 5,270,364 dozen were sold direct to retailers or consumers by exempt producers and 8,961,946 (graded as shown below) were sold through authorised agents:—

Grade of Eggs.	Quantity.	Value.	Average Gross Price.
	doz.	£	s. d.
Hen	7,589,287	594,072	1 6-82
Medium	1,077,400	73,468	1 4-36
Pullet... ..	236,897	12,147	1 0-3
Case	7,059	439	1 2-9
1st Duck	40,781	3,041	1 5-88
2nd Duck	10,522	779	1 5-77
Totals	8,961,946	683,946	.....

The operations of the Board, as pointed out above, do not cover the whole of the eggs of New South Wales.

BEE-KEEPING.

The bee-keeping industry is at the present time of small importance, and is generally conducted as an adjunct to other rural occupations. Good table honey is obtained from the flora of native eucalypts of many varieties.

Details of special legislation regarding apiculture were published at page 655 in the Year Book of 1918. Frame hives are in general use, box hives being specifically prohibited.

The particulars stated below represent the activities on holdings of 1 acre and upwards, but as many hives are maintained on smaller areas, from which no information is collected, the figures quoted are considerably below the actual numbers or quantities.

The statistics quoted for 1928-29 represent the details of 1,440 holdings, on which bee hives were kept.

The production of honey and of beeswax varies considerably from year to year, as shown in the following table:—

Season.	Bee Hives.			Honey.	Average Yield of Honey per Productive Hive.	Beeswax.
	Productive.	Un-productive.	Total.			
	No.	No.	No.	lb.	lb.	lb.
1910-11	55,958	14,308	70,266	2,765,618	49.4	72,617
1920-21	28,041	6,387	34,428	1,443,377	51.5	23,320
1921-22	34,129	7,369	41,498	2,989,074	87.6	28,385
1922-23	26,855	11,549	38,404	1,239,080	46.1	28,442
1923-24	19,987	11,774	31,761	590,980	29.6	12,703
1924-25	34,692	5,431	40,123	3,090,150	89.1	40,108
1925-26	36,901	4,527	41,428	2,235,095	60.6	38,271
1926-27	31,310	7,732	39,042	1,522,540	48.6	22,636
1927-28	26,009	11,096	37,105	1,154,201	44.4	17,139
1928-29	32,444	8,711	41,155	2,354,845	72.6	30,064

The yield per productive hive improved considerably as a result of the enactment of the Apiaries Acts in 1916 and 1917, but it is subject to marked fluctuations according to seasonal conditions.

In 1928-29 the estimated value of the recorded production from bees was £44,000, the quantity of production in each division being as follows:—

Division.				Honey.	Beeswax.
				lb.	lb.
Coastal	...	...	...	754,483	12,030
Tableland	...	...	...	1,040,584	11,026
Western Slopes	...	...	...	532,008	6,631
Central Plains and Riverina	...	...	...	27,770	377
Total	...	...	...	2,354,845	30,064

Marketing of Honey.

Under the Marketing of Primary Products Act, 1927, a poll of apiarists was taken on 11th February, 1929, as to the advisability of establishing a board to control the marketing of honey.

A roll of apiarists was prepared, and at a ballot 92.5 per cent. of these recorded their votes, 70 per cent. favouring the proposal.

A board comprising three elected representatives of the apiarists and two nominated members held its first meeting in May, 1929. The operations of the Board commenced on 1st November, 1929, when the wholesale price of honey was fixed, nine authorised selling agents were appointed and all producers were registered. A levy of 5 per cent. was imposed on all sales in order to provide finance for the Board. During the year ended 31st October, 1930, the quantity of honey sold through authorised agents in Sydney was approximately 1,872,000 lb., besides 1,068,000 sold direct by beekeepers. The prices fixed by the Board for sales by beekeepers to the trade were per lb. of honey:—

Date.	Choicest.	Good.	Medium.
	d.	d.	d.
1 Nov., 1929	6	5	4
— Feb., 1930	6½	5½	4½
27 May, 1930	6	5	4
9 Sept., 1930	5	4½	3½

VALUE OF DAIRY AND FARMYARD PRODUCTION.

It is evident from the foregoing that the dairying and farmyard industries are important factors in the rural production of New South Wales. The value of production in 1928-29 amounted to £14,849,000, or £6 1s. 3d. per head of population. The dairying industry yielded £10,482,000; pigs, £1,237,000; poultry, £3,086,000; and bees, £44,000. The value of production in each year since 1911 was as follows:—

Year.	Milk for Butter.	Milk for Cheese.	Milk (not used for Butter or Cheese).	Milch Cows.	Pigs.	Poultry and Eggs.	Bees.	Total.
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
	£	£	£	£	£	£	£	£
1911	3,631	129	619	389	447	1,280	39	6,534
1912	3,895	168	750	406	539	1,401	33	7,192
1913	3,450	170	950	385	590	1,578	30	7,063
1914-15	4,038	170	962	523	538	1,597	18	7,846
1915-16	3,198	167	1,084	419	605	2,144	32	7,649
1916-17	4,740	227	1,059	657	795	1,908	33	9,419
1917-18	4,954	250	1,618	668	990	2,082	73	10,635
1918-19	4,537	204	1,949	709	1,153	2,501	20	11,073
1919-20	4,712	278	2,132	721	1,121	2,914	15	11,793
1920-21	8,411	306	2,751	603	1,130	3,196	50	16,447
1921-22	5,800	228	2,359	899	925	2,650	53	12,914
1922-23	5,805	193	2,558	1,133	976	2,750	22	13,445
1923-24	5,077	213	2,604	1,113	1,037	2,321	12	12,327
1924-25	6,342	197	3,039	1,005	1,107	2,591	55	14,336
1925-26	7,045	233	2,386	430	1,304	3,277	37	14,712
1926-27	6,478	227	2,476	473	1,323	3,617	27	14,591
1927-28	6,722	248	2,714	600	1,237	3,728	24	15,273
1928-29	6,779	228	2,701	774	1,237	3,086	44	14,849

PRICES OF DAIRY PRODUCTS.

The average wholesale prices obtained in the Sydney markets for the principal kinds of dairy and poultry farm produce in 1914 and during the last six years are shown in the following table. The average quoted for the year represents the mean of the prices ruling each month, and does not take into account the quantity sold during the month.

Dairy and Poultry Farm Produce.	1914.	1924.	1925.	1926.	1927.	1928.	1929.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Milk ... gal.	0 11 $\frac{3}{4}$	1 8	1 6 $\frac{1}{2}$	1 8 $\frac{1}{2}$	1 10	1 10	1 8 $\frac{1}{2}$
Butter ... lb.	0 11 $\frac{3}{4}$	1 5 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 7 $\frac{3}{4}$	1 10	1 7 $\frac{3}{4}$	1 9 $\frac{1}{2}$
Cheese ... "	0 7 $\frac{1}{2}$	0 9 $\frac{1}{2}$	0 10 $\frac{1}{4}$	0 11 $\frac{1}{2}$	0 11 $\frac{1}{2}$	0 10 $\frac{1}{4}$	0 11 $\frac{1}{2}$
Bacon (sides) ... "	0 9 $\frac{1}{2}$	1 2 $\frac{1}{4}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 1	1 0 $\frac{1}{2}$	1 1 $\frac{1}{2}$
Eggs (new laid) doz.	1 4 $\frac{1}{2}$	1 11	1 10 $\frac{1}{2}$	1 11	1 8	1 11 $\frac{3}{4}$	1 10 $\frac{1}{2}$
Poultry—							
Fowls—							
(Roosters) ... pr.	5 5	8 2	9 3	10 3	10 5	8 11	8 11
Ducks—							
(English) ... "	4 5	9 9	8 0	*	11 3	8 8	8 4
Geese ... "	6 8	11 0	10 0	9 9	11 2	11 9	11 2
Turkeys (cocks) "	11 2	33 3	30 3	39 3	39 6	30 10	30 6
Bee produce—							
Honey ... lb.	0 3 $\frac{1}{2}$	0 5 $\frac{1}{4}$	0 4	0 4 $\frac{1}{4}$	0 5	0 5	0 4 $\frac{1}{2}$
Wax ... "	1 2 $\frac{1}{2}$	1 3 $\frac{1}{4}$	1 4 $\frac{1}{2}$	1 8	1 9	1 9 $\frac{1}{2}$	1 9

* No quotations.

The relative variations in the Sydney wholesale prices of eight principal dairy and farmyard products, viz., butter, cheese, bacon, ham, eggs, condensed milk, honey and lard are shown in the following table of index numbers, in which the prices of 1911 are taken as the base and represented by 1,000:—

Year.	Index Number.	Year.	Index Number.	Year.	Index Number.
1901	963	1917	1,440	1925	1,612
1906	953	1918	1,487	1926	1,760
1911	1,000	1919	1,718	1927	1,831
1912	1,133	1920	2,236	1928	1,763
1913	1,033	1921	2,020	1929	1,842
1914	1,128	1922	1,735	1930	*1706
1915	1,349	1923	1,939		
1916	1,380	1924	1,671		

* To June.

Although the average prices of dairy produce have remained very much above the pre-war level the relative increases have been considerably less than those of other products. A comparative table showing the relative increases in each of eight groups of commodities is published in the chapter "Food and Prices" of this Year Book.

FORESTRY.

THE forest lands of the State containing timber of commercial value consist of about 11 million acres, of which about 8 million acres are Crown lands. Nearly 7 million acres of State lands have been either dedicated or reserved for the preservation and growth of timber.

The total forest area, although not large, contains a great variety of useful timbers, which in hardwoods number about twenty different kinds of good commercial value, including such renowned constructional woods as ironbark, tallow-wood, and turpentine. In other timbers there are about twenty-five varieties, including such valuable timbers as cedar, beech, pine, and teak. It is estimated that, approximately, five-sixths of the timber supply consists of mixed hardwoods and one-sixth of soft and brush woods.

An account of the system of forestry administration in New South Wales was published on pages 669 and 670 of the Year Book for 1928-29.

State Forests.

As at 31st December, 1929, a total area of 5,255,635 acres of Crown Lands had been dedicated permanently as State forests, and 1,564,858 acres had been set apart tentatively as timber reserves. Included in the State forests are a number of State forest plantations of an aggregate area of 19,780 acres.

Particulars relating to the State forests and plantations and timber reserves as at the end of each of the last six years are shown below:—

At 30th June.	State Forests.		State Plantations.	Timber Reserves.	
	Number.	Area.	Area.	Number.	Area.
		acres.	acres.		acres.
1924	720	5,221,415	7,180	550	1,659,897
1925	714	5,145,957	9,461	552	1,637,458
1926	731	5,250,601	11,214	563	1,653,817
1927	725	5,277,739	13,440	576	1,595,726
1928*	726	5,315,426	16,698	587	1,541,346
1929*	721	5,255,635	19,780	590	1,564,858

* 31st December.

The timber reserves are reviewed from time to time, and arrangements are made to dedicate suitable reserves as State forests, in order that they may be reserved permanently for forestry purposes and the reservation of unsuitable areas is revoked to make them available for other uses.

Location of Forest Lands and Main Forest Types.

A description of the timber zones of New South Wales and of the principal types of timber to be found in them was published on pages 671 and 672 of the Year Book for 1928-29.

State Forest Nurseries and Plantations.

A State Forest Nursery is maintained at Gosford for the propagation of plants of commercial types; the planted area is about 42 acres. Exchanges of seeds and plants are made with similar institutions in various parts of the world. Branch nurseries of various dimensions have been established in practically every forestry district in the State. At Tuncurry on the North Coast, Mila on the Southern Tableland, and Mount Mitchell, near Glen Innes, on the Northern Tableland, pine plantations are worked by prison labour.

To supplement the supply of softwood in the State, afforestation should be conducted on a more extensive scale than at present, and it has been estimated that it is necessary to plant 5,000 acres per year for thirty years in order to assure adequate supplies. Preliminary surveys in the southern and central highlands disclose an area of 200,000 acres suitable for the growth of softwoods. Similar surveys are proceeding in the northern highlands.

Production and Consumption of Timber.

During the year ended 30th June, 1929, there were in operation 477 saw-mills. The employees numbered 4,639, and the value of plant and machinery was estimated at £813,170. The output of native timber amounted to 41,636,900 super. feet of softwood and 94,414,200 super. feet of hardwood.

In the forests which have been placed under intensive management the Forestry Commission undertakes the conversion of many classes of forest produce in order to ensure that all saleable timber will be removed promptly from each area to make way for young growth.

The following table shows the average annual output of native timber from saw-mills in New South Wales in successive years since 1920, and the gross consumption of native and imported timbers as estimated by the Forestry Commission.

Year ended 30th June.	Annual Output of Native Timber from Saw-mills. (000 omitted.)	Estimated Gross Consumption of Timber.		
		Native.	Imported.	Total.
		(000 omitted.)		
	cubic feet.	cubic feet.	cubic feet.	cubic feet.
1920	12,926	26,503	7,220	33,723
1921	13,009	29,407	8,655	37,462
1922	12,772	29,745	9,185	38,930
1923	12,259	30,476	11,923	42,399
1924	13,958	32,555	14,898	47,453
1925	13,535	44,812	14,553	59,365
1926	14,166	38,791	18,549	57,340
1927	13,574	39,956	17,127	57,083
1928	12,215	*39,071	*15,217	*54,288
1929	11,338	*40,045	*19,753	*59,798

* Year ended 31st December.

Until towards the end of 1929 there was remarkable activity in the building trade, and the consumption of timber increased rapidly. Most of the imported timber consists of softwoods. The native timber consumed in 1929 consisted of 19,866,000 cubic feet of hardwood, 5,234,000 cubic feet of cypress pine, 1,433,000 cubic feet of hoop pine, 812,000 cubic feet of brushwood, and 12,700,000 cubic feet of fuel.

Value of Production from Forestry.

The following table shows the value of forestry production as at the place of production in New South Wales at intervals since the year 1901:—

Year ended 30th June.	Value.	Year ended 30th June.	Value.
	£		£
1901*	554,000	1925	1,647,000
1908*	1,008,000	1926	1,871,000
1911*	998,000	1927	1,862,000
1916	1,045,000	1928	1,715,000
1921	1,656,000	1929	1,601,000

* Year ended 31st December.

Imports and Exports of Timber.

The greater part of the softwood used in New South Wales has been drawn for many years from foreign sources of supply, among which New Zealand, the United States of America, Canada, Norway, and Sweden are most important. Steps are being taken, however, to plant extensive areas in New South Wales with high-class American and other softwoods in order to render the State independent of imported timbers.

In the following table particulars are shown regarding the import and export of timber to and from New South Wales at intervals since 1901. The large import reflects a local demand for softwoods. It is not probable that the export trade will ever assume large proportions, though the forests of the State abound in high-class hardwoods.

Year.	Imports Oversea to New South Wales.				Exports of Australian Produce Oversea from New South Wales.			
	Undressed.		Other.	Total Value.	Undressed.		Other.	Total Value.
	Quantity.	Value.			Quantity.	Value.		
	sup. feet. (000)	£	£	£	sup. feet. (000)	£	£	£
1901	68,369	322,642	137,123	459,765	10,386	66,346	58,664	125,010
1906	84,772	444,563	81,850	526,413	29,322	325,805	9,361	335,166
1911	164,380	955,344	209,028	1,164,372	28,398	250,990	17,949	268,939
1915-16	119,232	814,102	74,305	888,407	15,099	144,486	10,965	155,451
1920-21	93,303	1,904,064	174,910	2,078,974	23,202	447,653	17,072	464,725
1925-26	194,393	1,964,596	463,610	2,428,206	23,486	390,439	6,689	397,128
1926-27	173,261	1,904,040	393,983	2,298,023	18,282	301,671	5,349	307,020
1927-28	229,977	2,207,103	438,234	2,645,337	16,577	283,053	11,163	294,216
1928-29	187,009	1,919,846	301,343	2,221,189	15,056	262,200	12,573	274,773

In addition there is a considerable interstate movement of timber by sea, of which complete records are not available. The quantity of rough and sawn timber recorded by the Sydney Harbour Trust as being imported at Sydney from other Australian States in 1928-29 was 10,116,961 super. feet, and, in 1929-30, 9,716,533 super. feet.

Forestry Licenses and Permits.

Licenses and permits are granted for the purposes of obtaining timber and fuel, grazing, sawmilling, ringbarking, and for the occupation of land. The fees for licenses and permits are small, but considerable revenue is gained from royalties on timber, agistment, and occupation fees, etc.

The revenue collected by the State from timber licenses and from royalty on timber during various years since 1911 is shown in the following table:—

Year ended 30th June.	Sales, Rents, Fees, etc.	Royalty on Timber.	Total.	Year ended 30th June.	Sales, Rents, Fees, etc.	Royalty on Timber.	Total.
	£	£	£		£	£	£
1911*	11,153	79,165	90,318	1927	43,626	181,317	224,943
1916	8,701	59,406	68,107	1928*	80,183	146,484	226,667
1921	76,141	114,601	190,742	1929*	69,754	140,989	210,743

* Year ended 31st December.

Included in the total for 1929 are sales of converted and confiscated material, £32,357, and rents for occupation permits, forest leases, etc., £29,093.

The experience of Europe and America has shown that well-directed expenditure by the Government in afforestation and re-afforestation is directly reproductive, and forest improvement in New South Wales, where timber grows more rapidly and to larger size, should yield even more favourable results.

Particulars of expenditure by the Forestry Department during the last five years are shown in the following table:—

Head of Expenditure.	Year ended 30th June.			Year ended 31st December.	
	1925.	1926.	1927.	1928.	1929.
	£	£	£	£	£
Demarcation	8,034	6,912	7,390	5,787	4,178
Forest Roads and Fire-breaks	4,582	3,899	13,918	14,086	22,765
Sylvicultural Works	24,694	34,126	45,996	40,116	39,561
Permanent Improvements	19,724	44,698	18,677	13,528	12,902
Conversion Work	4,696	4,156	5,415	29,872	19,993
Administrative, Research and Other	91,992	84,699	115,703	109,469	94,670
Total... ..	153,722	178,490	207,099	212,858	194,069

Persons Employed in Timber Industry.

It has been estimated by the Forestry Department that 11,389 persons were employed in the timber industry during the year 1929, viz., 2,891 in felling and cutting; 2,286 in hauling timber to the mills; 3,325 in milling; and 2,887 in other occupations. These figures include persons partially employed, viz., 1,224 in felling and cutting and 827 in hauling timber.

FISHERIES.

A BRIEF statement of the nature of the fisheries of New South Wales was published on page 676 of the Year Book for 1928-29.

CONTROL OF THE FISHERIES.

Under the Fisheries Act, 1902, control of the fisheries of the State, previously administered by a Commission, was placed in the hands of a Board to supervise the industry, to carry out investigations likely to be of service, and to ensure observance of the regulations in regard to the dimensions of nets, closure of inland and tidal waters, net-fishing, and other such matters. Under an amending Act, in 1910, the Fisheries Board was dissolved and its powers vested in a Minister of the Crown, the Chief Secretary being charged with the administration of the Act. In 1928 a Director of State Fisheries was appointed.

Fishing Licenses.

Persons catching fish for sale in tidal or inland waters must be licensed, also boats used for this purpose, the annual fee being 5s., which is reduced to half that amount if the license is issued after 30th June and before 1st December.

The number of licenses granted to fishermen during the year 1929 was 3,324, and licenses were issued in respect of 1,739 fishing boats.

Oyster Leases.

For the purposes of oyster-culture, tidal Crown lands below an approximate high-water mark may be leased at yearly rentals, determined by the Minister. The areas are classified as average, special, or inferior lands.

The leases of average lands are for fifteen years, but may be renewed for a like period. An area upon which an aggregate rental of less than £5 per annum is payable may not be leased to any person unless he is already an oyster lessee.

Leases of special lands are granted for areas of special value after the land has been offered by auction or tender, and are subject to the same conditions as leases of average lands, but need not be confined to areas along the approximate high-water mark.

Leases of inferior lands are granted for a term not exceeding ten years, with the right of renewal for a further term of five years.

During the year 1929 applications for leases numbered 571, representing 157,520 yards of foreshore and 217 acres of off-shore leases. At the end of the year the existing leases numbered 5,068. The length of foreshores held was 1,140,609 yards, and there were deep-water leases to the extent of 3,104 acres.

PRODUCTION FROM FISHERIES.

The principal items of fisheries production since 1921 are shown in the following table:—

Year Ended 31st December.	Fish.			Oysters.	Prawns.
	Trawled.	Captured Otherwise.	Total.		
	lb.	lb.	lb.	bags.*	lb.
1921	5,585,000	16,415,000†	22,000,000‡	21,628	474,700
1922	5,405,000	14,595,000‡	20,000,000‡	24,811	240,008
1923	†	†	17,641,000	27,970	200,105
1924	5,302,000	13,265,170	18,567,170	28,380	596,241
1925	7,694,757	12,645,598	20,340,355	28,546	1,062,926
1926	6,681,251	12,996,318	19,677,569	31,876	1,042,774
1927	8,096,420	12,755,942	20,852,362	30,303	1,083,524
1928	11,682,450	13,855,165	25,537,615	29,180	1,471,186
1929	15,076,600	13,519,604	28,596,204	31,065	1,119,044

* 3 bushels.

† Not available.

‡ Approx'm etc.

Until 1923 fish were trawled by a State enterprise which, that year, closed down and operations commenced by private individuals. Activities were steadily expanded and between 1924 and 1929 the production of trawled fish was almost trebled. Production by inshore fishermen at first declined slightly then recovered and the annual production of fish increased by over 10,000,000 lb. or 54 per cent. Between 1921 and 1929 the average consumption of fresh fish increased from 13.7 lb. to 16.2 lb. per head of population. These quantities are exclusive of fish caught other than commercially.

Most of the fish referred to above is consumed in the Metropolitan and Newcastle districts, only 1,881,179 lb. having been consigned to the country districts from the metropolitan market in 1929. The Director of Fisheries has drawn attention to the possibility of expanding the country market for fish.

During 1929 the number of deep-sea trawlers was increased from 11 to 18, but, as the existing market was not able to absorb the resultant catch in 1930 and prices declined, the Steam Trawlers' Association reduced the number of vessels operating from 18 in January, when the total trawl was 17,181 baskets, to 14 in August, 1930, the total trawl for which month was 13,521 baskets.

The most important kinds of fish marketed are flathead, snapper, bream, blackfish, whiting, mullet, jewfish, garfish, and Murray cod—a freshwater fish; tailer, trevally, leather-jacket, and gurnard are readily saleable in the local markets. Mullet was formerly the principal product of the inshore fisheries, but the demand for it has decreased because it has been replaced in the metropolitan market by trawled flathead, and provision has not been made for an expansion of the trade in suburban and country districts.

Fish.—The bulk of the inshore supplies is obtained in the estuaries and lakes on the northern part of the coast-line. The approximate quantities of fresh fish obtained from each of the principal fishing grounds of the State are indicated below:—

	1928.	1929.		1928.	1929.
	lb.	lb.		lb.	lb.
Clarence River ...	2,995,275	2,309,160	Botany Bay ...	283,611	233,604
Wallis Lake ...	1,548,533	1,353,217	Richmond River...	634,039	410,287
Port Stephens ...	574,395	951,440	Hawkesbury River	322,758	465,339
Lake Illawarra ...	384,834	353,564	Port Jackson ...	151,498	84,374
Tuggerah Lakes ...	760,606	794,191	Hastings River ..	132,507	179,970
Lake Macquarie ...	463,826	717,330	Macleay River ...	167,235	339,220
Camden Haven ...	752,285	330,590	St. George's Basin	331,964	338,892
Manning River ...	310,085	504,700	Wollongong ..	290,841	394,430
Tweel River ...	692,735	431,760	Shoalhaven River	179,955	476,700
Jervis Bay...	497,943	451,220	Twofold Bay ...	17,542	364,784

Crayfish.—The number of marine crayfish (*Palinurus*) marketed during 1929 was 252,210. The number captured was very much greater, but many were lost by death before marketing. The principal source of supply was the northern crayfish grounds, from Newcastle to Port Macquarie. From Port Stephens, Wallis Lake and Manning River nearly 134,000 were sent to Market.

Prawns.—A quantity of approximately 1,119,044 lb. of marine prawns (*Penaeus*) was marketed during 1929, and about 7,998 lb. were condemned. These figures do not include prawns sold for bait.

Crabs.—About 1,019 dozen of crabs were marketed. They comprised several species of swimming crabs, notably the Blue (*Lupa*) and the Mangrove (*Scylla*).

Oysters.—During the year 1929 the oyster production of the State amounted to 31,965 bags, each of 3 bushel capacity, valued at £103,886. These consisted of Rock oyster (*Ostrea cucullata*). This output was principally the result of artificial cultivation.

Oversea Trade in Fish.

A very considerable proportion of the local requirements of fish are imported from countries outside Australia, the value of fish so imported during the year ended June, 1929, being £768,571, including 12,257,172 lb. of tinned fish, valued at £568,319. The value of fish exported overseas was £12,004, including tinned fish to the value of £10,058.

Value of Fisheries Production.

The value of the production from fisheries of New South Wales, as recorded during the year ended 30th June, 1929, was approximately £741,000, including fresh fish, £565,000, oysters, crayfish, prawns, etc., £176,000.

The value of production is estimated as at the place of production and is exclusive of fish condemned, of fish sold in fishing and other centres and not recorded, or used for fertiliser and oil, and of the value of molluscs other than oysters.

The following table shows the value of production from fisheries since the year 1917-18:—

Year ended 30th June.	Value. (000 omitted.)	Year ended 30th June.	Value. (000 omitted.)
	£		£
1918	307	1924	520
1919	335	1925	540
1920	470	1926	583
1921	491	1927	614
1922	538	1928	671
1923	491	1929	741

FISH PRESERVING.

Many fishes specially suitable for treatment by canning, smoking, or salting are obtainable in the waters along the coast of New South Wales, but irregularity of supplies and climatic disadvantages have militated against the success of canning factories.

FISH CULTURE AND ACCLIMATISATION.

Acclimatisation of trout has met with remarkable success in the State—trout up to 8 and 10 lb. are not uncommonly captured. Every suitable stream, viz., practically all above an altitude of 2,500 feet, is stocked with trout.

During the last few years liberations of trout have increased enormously; prior to 1914 the total released was 66,500, but in 1929 upwards of 1,300,000 trout were liberated.

RURAL SETTLEMENT

A BRIEF resume of the spread of settlement in New South Wales and of the development of the problem of rural settlement was published at page 679 of the Year Book for 1928-29.

RURAL HOLDINGS.

The land of New South Wales which is occupied in rural holdings consists either of alienated lands, lands in course of alienation, leased Crown lands, or various combinations of these tenures, while a considerable area remains as Crown reserves. At 30th June, 1929, the number of agricultural and pastoral holdings of 1 acre or more in extent was 77,659, including 1,599 unoccupied or not used for agricultural or pastoral purposes at that date, and 2,188 used only incidentally for such purposes. These holdings embraced a total area of 173,504,000 acres.

The area of land neither alienated nor leased from the Crown does not represent the area of unoccupied land available for settlement. It includes the land unfit for occupation of any kind—estimated to be approximately 5,000,000 acres in extent; land embraced in State forests and not otherwise occupied; unoccupied reserves for necessary public purposes, such as commons, travelling stock and water reserves, roadways, railway enclosures, and unoccupied land covered by water or too rugged or arid for occupation. Such lands are situated mainly in the coastal and tableland divisions, but smaller proportions are found in all divisions.

Use of term "Alienated Land."

In collecting statistical returns relating to agricultural and pastoral holdings, the term "alienated land" is intended to relate to lands absolutely alienated, lands in course of alienation, homestead selections and homestead farms embraced within rural holdings one acre or more in extent. These tenures include practically the whole of the land alienated and virtually alienated. The term "alienated land" used throughout this chapter refers to the area so returned by individual landholders, and it does not, therefore, correspond to lands absolutely alienated for which deeds of purchase have been issued. This area has been shown as land absolutely alienated in the chapter entitled "Land Legislation and Settlement," which follows.

Purposes for which Holdings are Used.

The problem of rural development in New South Wales relates largely to the task of placing additional permanent settlers on the land as productive units of the population. In addition to human factors, this problem is complicated by the variations of seasons and of markets, which determine largely the profitableness of rural pursuits. An approximate classification

of the main purposes for which rural holdings of 1 acre and upwards were used is available for each year since 1908, and provides the following comparison, which shows at intervals the distribution of rural settlement according to purposes:—

Main purpose for which holdings are used.	Number of Holdings.						
	1908.	1911-12.	1915-16.	1925-26.	1926-27.	1927-28.	1928-29.†
Agriculture only	7,244	6,814	10,856	11,435	11,231	10,319	10,153
Dairying only	3,575	3,157	6,074	9,766	*10,075	10,118	12,985†
Grazing only	21,874	22,011	23,497	25,428	25,219	24,263	26,044†
Agriculture and Dairying	8,377	8,258	5,641	5,624	*5,529	5,375	2,942†
Agriculture and Grazing	18,733	21,969	20,895	18,084	18,183	19,472	17,353†
Dairying and Grazing	1,818	2,099	1,402	1,794	1,350	1,516	1,722†
Agriculture, Dairying, and Grazing	3,312	4,362	1,537	1,734	1,892	1,755	1,189†
Poultry, Pig, or Bee Farming	529	879	1,256	1,526	1,389	1,447	1,484
Total Holdings of 1 acre and upwards used mainly for Agricultural and Pastoral purposes	35,462	69,549	71,158	75,391	74,868	74,265	73,872

* Revised.

† Basis of classification amended in this year.

In addition, a considerable number of small holdings—usually less than 30 acres in extent—were used partly for agricultural and pastoral purposes, but mainly for residential and other purposes, or were unoccupied at the time of collecting the returns. They numbered 3,787 in 1928-29.

The above table does not indicate the actual number of settlers occupying the land—because some holdings are held conjointly, and a number of landholders own more than one holding.

In 1928-29 the basis of classification was amended so that holdings on which agricultural operations were entirely or almost entirely confined to the raising of produce to feed sheep, cattle or pigs on the holding were classified under the headings “grazing only” or “dairying only” in order that the grouping might reflect more accurately the commercial purpose of the landholder. The decline in the number of holdings devoted to agriculture only is co-incidental with a decrease in the number of holdings cropping less than 200 acres for wheat. Many holdings besides those classified as devoted mainly to poultry, pig and bee farming conduct these activities as a subsidiary pursuit. In 1928-29 there were 2,124 holdings one acre or more in extent which carried 150 or more poultry for commercial purposes.

The area of land utilised for the principal forms of rural industry during the year 1928-29 were as shown below:—

Divisions.	Agriculture.	Dairying.	Grazing.	Other Purpose ^a .	Total.
	acres.	acres.	acres.	acres.	acres.
Coastal	282,101	4,013,751	8,363,935	458,606	13,118,393
Tablelands	605,597	289,357	18,779,077	135,668	19,809,699
Western Slopes	4,321,901	203,494	19,992,359	118,097	24,635,851
Plains	3,552,117	50,573	33,052,006	247,978	36,902,674
Western Division	27,333	7,827	78,900,364	101,781	79,037,305
Total	8,789,049	4,565,002	159,087,741	1,062,130	173,503,922

Climatic and meteorological circumstances play a considerable part in determining the uses to which land is put in the various districts. The distribution of rainfall in relation to the geographical distribution of rural industries in New South Wales was shown in a map facing page 728 of the Year Book for 1924.

Size of Holdings.

Information regarding the size of rural holdings is available in two distinct classifications, one in accordance with the size of the alienated area only, excluding the Crown lands attached thereto, and the other in accordance with the total area of alienated and Crown land contained in each holding.

Tables showing as at 30th June, 1925, in area series, the freehold area of holdings, and of Crown lands attached, classified according to the size of the privately-owned land, and particulars of holdings consisting of Crown lands only were published in chapter "Rural Settlement" of the Year Book for 1925-26. A table showing the number and size of holdings classified according to the total area of alienated and Crown lands combined as at 30th June, 1927, was published on page 683 of the Year Book for 1928-29. These tabulations are available in greater detail in the Statistical Register of New South Wales.

Number of Holdings and Average Area.

Statistics as to the number and average area of alienated holdings and of the number of large holdings were published on pages 684 and 685 of the Year Book for 1928-29.

Tenure of Holdings.

The tenure of land-holdings in New South Wales is principally of two classes—freehold and leasehold from the Crown. Only a small proportion of the total area occupied (approximately 2 per cent.) is rented from private owners, although the area held on lease from the Crown is very large. Tenancy, as understood in older countries is, therefore, of small extent, 95.2 per cent. of the total alienated area being occupied by its owners.

The following table shows the area occupied in each division of New South Wales, according to the class of tenure as at 30th June, 1929. Owing to rearrangement of the divisions on the basis of Local Government areas in 1922-23, divisional comparisons cannot be made effectively with figures published prior to that year.

Division.	Area of Alienated* Holdings.			Crown Lands occupied as separate holdings or attached to alienated holdings.	Total Area in Holdings.
	Occupied by Owner.	Private Rented.	Total.		
	acres.	acres.	acres.	acres.	acres.
Coastal	8,772,489	1,152,661	9,932,150	3,186,543	13,118,393
Tableland... ..	13,222,124	606,180	13,934,004	5,875,395	19,809,699
Western Slopes	19,799,098	754,007	20,553,105	4,082,746	24,635,851
Central Plains and Riverina	25,319,773	99,447	26,249,220	10,653,454	36,902,674
Western	1,515,417	23,833	1,539,250	77,498,055	79,037,305
New South Wales	68,735,901	3,472,118	72,208,029	101,295,893	173,503,922

* See explanation, page 614.

Of the total area occupied, 41 per cent. was classed as freehold, although a considerable proportion of the total was in course of purchase from the Crown, and 59 per cent. was leased from the Crown. Over 76 per cent. of the Crown lands so leased were in the Western Division, and utilised almost exclusively for depasturing stock.

Slightly more than one-third of the privately rented alienated land is situated in the Coastal Division, where it amounts to nearly 9 per cent. of the total area occupied in holdings. These farms are used chiefly for dairying.

The proportions of the total area of the respective divisions occupied in holdings of various classes are shown in the following table:—

Division.	Area of Alienated* Holdings.			Crown Lands occupied as separate holdings or attached to alienated holdings.	Proportion of Total Area under Occupation.
	Occupied by Owner.	Private Rented.	Total.		
	per cent.	per cent.	per cent.	per cent.	per cent.
Coastal	39.46	5.21	44.67	14.32	58.99
Tableland... ..	51.47	2.34	53.81	22.69	76.50
Western Slopes	70.30	2.67	72.97	14.50	87.47
Central Plains and Riverina	61.14	2.25	63.39	25.75	89.14
Western	1.88	0.03	1.91	96.49	98.40
New South Wales	34.71	1.76	36.47	51.15	87.62

* See explanation, page 614.

Slightly more than 87 per cent. of the total area contained within the boundaries of the State is occupied in holdings of 1 acre and upwards, used for agricultural or pastoral purposes. The highest proportion of alienation, 73 per cent. of the area of the division, has taken place in the Western Slopes, and the lowest, 1.9 per cent., in the Western Division. But taking the total area of holdings, the Western Division shows the largest proportion of its area—98.4 per cent.—under occupation. The proportions are high also in the Central Plains and Riverina, 89.1 per cent., and in the Western Slopes, 87.5 per cent.

If reference be made to the table on page 683 of the Year Book for 1928-29 it will be seen that the proportion of lands used for agricultural and pastoral purposes in each division decreases as the intensity of settlement increases. At the same time it is apparent that the density of settlement bears an approximate relationship to physical configuration and average rainfall. While the greater intensity of settlement in the more easterly districts necessitates the allocation of larger proportions of land for public purposes, it is undeniable that a very considerable proportion of the remaining Crown land in the Eastern Division is so rugged or wooded as to be unfit or unprofitable for occupation. This is especially the case in the South Coast Division, which in parts is very mountainous, only 43 per cent. of the total area being occupied by rural holdings, as compared with 70 per cent. in the North Coast Division and 64 per cent. in the Hunter and Manning.

VALUE OF ALIENATED RURAL LANDS.

The particulars which follow relate to the value, on a freehold basis, of lands absolutely alienated, in course of alienation, or held as homestead farms or homestead selections and used for agricultural and pastoral purposes. Information as to the improved and unimproved capital values of such lands was first collected in 1920-21.

The unimproved capital value was defined as being the amount which the land might be expected to realise if sold under such reasonable conditions as a *bona fide* seller would require, assuming that the actual improvements had not been made, and the improved capital value as the value of the land with all improvements and buildings thereon under similar conditions of sale. Where particulars of unimproved value are not available from owners, collectors are instructed to obtain them from the records of Shire Councils, so that the unimproved values quoted may be taken as representing local government assessments, except in the Western Division, where no shires exist.

Where valuations have been made by the Valuer-General it has been found that valuations formerly made for local government purposes were below actual values. In many cases the discrepancy was considerable, and in the aggregate the valuations of shires are probably under-estimated by more than 20 per cent. Since municipal lands are of comparatively small extent, and very few shires assess improved values, particulars of improved capital value were obtained from the owners. In the table which follows, then, the unimproved capital value represents in most cases the shire valuation, but the improved values are obtained from the owners' assessment of the value of the land and its improvements. It is not possible to deduce the value of the improvements from the figures.

The following table shows in divisions of the State (on the basis of Local Government areas) the distribution of alienated and Crown lands occupied in holdings of one acre and upwards for agricultural and pastoral purposes, together with the total and average value of the alienated lands at 30th June, 1929:—

Division.		Alienated* Land in Occupation in Holdings of 1 acre and over.					Area of Crown Land
		Area.	Unimproved Capital Value of Land.		Improved Capital Value.		
			Total.	Average per acre.	Total.	Average per acre.	
		Acres.	£	£	£	£	Acres.
		000.	000.		000.		000.
Coastal—							
North Coast ...		3,424	12,672	3·7	34,457	10·1	1,435
Hunter and Manning ...		4,246	9,852	2·3	29,568	7·0	1,148
Metropolitan ...		317	3,187	10·1	7,175	22·6	2
South Coast ...		1,945	4,682	2·4	12,872	6·6	601
Total ...		9,932	30,393	3·1	84,072	8·5	3,186
Tablelands—							
Northern ...		4,027	5,632	1·4	14,960	3·7	2,478
Central ...		5,834	9,305	1·6	30,805	5·3	1,856
Southern ...		4,074	5,270	1·3	16,756	4·1	1,541
Total ...		13,935	20,207	1·5	62,521	4·5	5,875
Western Slopes—							
North ...		6,030	10,635	1·8	24,990	4·1	2,167
Central ...		6,014	9,623	1·6	32,319	5·4	830
South ...		8,509	15,776	1·9	53,990	6·3	1,086
Total ...		20,553	36,034	1·8	111,299	5·4	4,083
Plains—							
North-central ...		4,695	5,880	1·3	13,033	2·8	2,797
Central ...		8,075	8,386	1·0	20,111	2·5	5,338
Riverina ...		13,479	21,368	1·6	59,512	4·4	2,519
Total ...		26,249	35,634	1·4	92,656	3·5	10,654
Western Division ...		1,539	853	0·6	2,573	1·7	77,498
Whole State ...		72,208	123,121	1·7	353,121	4·9	101,296

* See explanation, page 644.

Particulars of the rainfall, productivity, and population of each of these divisions are shown on page 650. The average value per acre is closely related to these factors. The alienated lands in the Western Division are situated mainly in its eastern confines, and the value thereof does not afford any indication of the value of the extensive Crown lands situated further west.

Capital used in Rural Industries.

The capital value of privately-owned farm property in New South Wales was approximately £433,000,000 at 30th June, 1929, made up as follows:—

	£
Alienated land and improvements thereto ..	353,100,000
Machinery and implements	17,800,000
Live stock	62,000,000

In addition, the value of Crown lands leased to landholders was estimated at approximately £64,000,000, including the assessed value of private rights in such leases. The aggregate capital value of property used in rural industries was, therefore, in the vicinity of £500,000,000.

Statements showing the unimproved value of land in alienated holdings in value series as at 30th June, 1925, also the numbers of live stock and the improved capital value of alienated holdings in area series at the same date appear in this chapter of the Year Book for 1925-26.

CHARACTER OF SETTLEMENT.

A brief description of the character of rural settlement in New South Wales was published on page 689 of the Year Book for 1928-29 and a map showing the distribution of the rainfall, population and rural industries of the State was published opposite page 728 of the Year Book for 1924.

The following analysis of the State, according to natural divisions on the basis of Local Government areas, shows the rainfall, population, area, and production of each. A map showing these divisions is published as a frontispiece to this Year Book:—

Division.	Range of Average Annual Rainfall.	Popu-lation at Census, 1921.	Total Area.	Production (1928-29).				
				Wool.	Wheat.	Butter.	Minerals.	Manu-factures.*
	inches.	000	acres.	lb.	bushels.	lb.	£	£
<i>Coastal—</i>		000	000	000.	000.	000.	000.	000.
North Coast ...	35-76	124	6,915	191	...	54,997	2	1,125
Hunter and Manning ...	22-60	245	8,395	7,265	16	20,692	2,478	6,510
Metropolitan ...	29-50	1,060	959	266	1	513	2,136	57,684
South Coast ...	27-61	89	5,968	3,498	...	9,554		
Total ...	...	1,518	22,237	11,220	17	85,756	4,616	67,230
<i>Tablelands—</i>								
Northern ...	30-38	51	8,119	26,179	162	1,580	91	287
Central ...	23-55	131	10,716	45,598	2,624	1,406	1,568	2,332
Southern ...	19-65	46	7,061	35,433	37	467	5	351
Total ...	...	228	25,896	107,210	2,823	3,453	1,664	2,970
<i>Western Slopes—</i>								
North ...	24-33	52	9,219	49,050	5,646	1,935	149	318
Central ...	17-28	52	7,723	41,377	9,084	513	1	326
South ...	16-40	96	11,222	62,447	14,260	3,495	2	713
Total ...	...	200	28,164	152,874	28,990	5,943	152	1,357
<i>Central Plains—</i>								
Northern ...	18-28	24	9,580	35,439	1,174	103	1	153
Central ...	15-19	20	14,811	50,793	2,494	114	18	101
Riverina ...	12-22	64	17,021	63,764	13,730	862	30	518
Total ...	...	108	41,412	149,996	17,398	1,079	49	772
<i>Western Division ...</i>	8-19	48	80,319	61,620	29	13	2,352	1,298
<i>Whole State ...</i>	...	2,102	198,028†	482,920	49,257	96,244	8,833	73,627

* Value added in process of manufacture. † Excluding area of harbours not included in local government areas.

Manufactories are not extensive outside the metropolitan and Newcastle districts, but dairy factories operate on a large scale along the coast. Smelting and metal works of considerable importance are established on the coal-fields of the South Coast and Central Tableland and on the silver-lead fields at Broken Hill in the Western Division.

The five principal topographical divisions are strips of territory running from the northern to the southern boundary in a south-westerly direction, embracing, respectively, the coastal belt, tablelands, western slopes, central western plains and Western Division or far western plains. Except for the western plains, each is divided into three portions—northern, central, and southern—which, with the inclusion of a special metropolitan district, makes fourteen subdivisions, each of which presents fairly uniform natural features and is affected by uniform physiographic factors. In the north the region of high average rainfall extends further inland than in the south, with the result that the isohyets run in a general north and south direction. The south-western extremity of the Riverina lies about 100 miles further from the coast than does the north-western extremity of the northern plain, and, as the average annual rainfall diminishes with increasing rapidity towards the west, the northern subdivisions shown above generally receive more rain than the central, and the central more than the southern subdivisions. Rather less than one-half of the total area of the State receives average rains exceeding 20 inches per year, and rather more than one-half receives an average of more than 15 inches per year. Where the rainfall is greatest conditions generally favour the dairying industry, the areas with moderate rainfall being more suitable for sheep and wheat. In the dry western areas wool-growing is the only important rural industry.

Not only the quantity, but the season and reliableness of the rainfall, and the amount of evaporation are important considerations in determining the productive possibilities of any region. In common with most countries, New South Wales suffers periodically in one part or another from the effects of intermittent rainfall, a disability which local conditions such as the abnormal evaporation and the absorbent nature of the soils of the interior tend to aggravate. This difficulty may be overcome ultimately by water conservation and improvement in cultural methods, but at present it operates powerfully to the detriment of the western hinterland.

SETTLEMENT IN DIVISIONS.

Rainfall exerts a decisive effect on the nature of the pursuits and the extent of settlement in the various rural districts of the State, and explains their industrial characteristics.

For the purpose of considering rural settlement, the State may be distributed into five statistical divisions, viz., Coast, Tableland, Western Slopes of the Great Dividing Range, Central Plains and Riverina, and the Western Division. The statistics for 1922-23 and subsequent years have been collected upon the basis of Local Government areas instead of counties, as formerly, and this necessitated considerable rearrangement of divisional boundaries.

The nature of the industries and the settlement of each of the principal divisions of the State were discussed in the Official Year Book, 1922, at page 681 *et seq.*

Statistics for 1928-29 are shown below:—

Coastal Districts.

The following table presents a summary of the tenure and extent of occupied holdings in the four main divisions of the coastal belt as at 30th June, 1929:—

Division of Coast.	Total Area of Division.	Holdings of 1 acre and upwards.	Area of Land occupied in Holdings of 1 acre and upwards 'for Agricultural and Pastoral Purposes.					Area of Alienated Land suitable for Cultivation.†
			Alienated.†			Crown Lands.	Total.	
			Freehold.	Private Rented.	Total.			
	acres.	No.	acres.	acres.	acres.	acres.	acres.	acres.
	000		000	000	000	000	000	000
North	6,915	11,587	2,937	487	3,424	1,425	4,859	482
Hunter-Manning ...	8,595	10,323	3,919	327	4,246	1,148	5,394	429
Metropolitan ..	959	4,629	272	45	317	2	319	135
South	5,968	5,025	1,645	300	1,945	601	2,546	320
Total	22,237	31,564	8,773	1,159	9,932	3,186	13,118	1,366

* Further particulars of rainfall and evaporation are published on pages 12 to 19 of this Year Book.

† See explanation page 644.

Apart from the small area in the county of Cumberland which surrounds the metropolis, the North Coast is by far the most closely-settled part of the Coastal Division. The average areas of holdings in the various divisions are:—North Coast, 420 acres; Hunter and Manning, 520 acres; and South Coast 505 acres. The proportion of the total area of each division occupied in holdings is 70 per cent. in the North Coast Division, 64 per cent. in that of Hunter and Manning, but only 43 per cent. on the South Coast. Of the total land in occupation about 67 per cent. is used by its owners, 24 per cent. is leased from the Crown, and 9 per cent. is rented privately.

Included in the coastal districts are 961 holdings, on which 1,291 share-farmers occupy 16,698 acres of cultivation and 318,698 acres as dairy farms.

Owing to the rugged nature of the country only a small proportion of the land is considered suitable for cultivation, and of this area less than one-quarter was cultivated in 1928-29.

The following analysis shows the main purposes for which these holdings were used in 1928-29:—

Principal Purpose for which Holdings were Used.*	Number of Holdings in Division.				
	North Coast.	Hunter and Manning.	Cumberland.	South Coast.	Total.
Agriculture only	597	1,784	2,076	295	4,752
Dairying only*	6,506	3,416	491	1,816	12,229
Grazing only*	1,939	2,752	414	1,650	6,755
Agriculture and dairying*	1,209	649	80	217	2,155
Agriculture and grazing*	209	306	79	217	811
Dairying and grazing*	506	483	11	196	1,196
Agriculture, dairying, and grazing*	115	111	5	47	278
Poultry	6	158	990	54	1,208
Poultry, Bees, Pigs, etc.	18	33	67	37	155
Unoccupied, or used mainly for other purposes	482	631	416	496	2,025
Total	11,587	10,323	4,629	5,025	31,564

* See comments on page 645.

The coastal district contains 95 per cent. of the holdings used mainly for dairying in New South Wales, and the North Coast district contains 64 per cent. of the number. Dairying separately or in conjunction with other farming pursuits is the predominant industry, but a considerable proportion of the farms is used for cattle-raising.

Tablelands.

Although extensive plateaux exist in the tableland divisions, considerable areas are rugged and rock-strewn and not adaptable to agriculture. Hence grazing has remained the staple industry, although many farmers combine agriculture with grazing, and large areas are cultivated in suitable localities. The rainfall is ample throughout, and the headwaters of most of the principal rivers make this a well-watered region. Railway communications are good, but, on the whole, settlement is sparse, fewer flourishing towns exist than on the coast, and small settlements are rarer because lands suitable for intense farming are more scattered. Neither dairying nor agriculture has been developed, and pastoral pursuits are extensive.

The following table provides an analysis of the number and tenure of rural holdings in the three main divisions of the Tablelands as at 30th June, 1929:—

Division of Tableland.	Total Area of Division.	Holdings of 1 acre and upwards.	Area of Land occupied in Holdings of 1 acre and upwards for Agricultural and Pastoral Purposes.					Area of Alienated Land suitable for Culti- vation.*
			Alienated.*			Crown Lands.	Total.	
			Freehold.	Private Rented.	Total.			
	acres. 000	No.	acres. 000	acres. 000	acres. 000	acres. 000	acres. 000	acres. 000
Northern ...	8,119	3,901	3,872	155	4,027	2,478	6,505	376
Central ...	10,716	8,064	5,567	266	5,833	1,856	7,689	1,531
Southern ...	7,061	3,220	3,889	185	4,074	1,542	5,616	330
Total ...	25,896	15,185	13,328	606	13,934	5,876	19,810	2,237

* See explanation, page 694.

While the proportion of land occupied in each division varies from 80 per cent. in the northern and southern to 72 per cent. in the central tablelands, rural settlement is densest in the central districts, which were the first to be occupied. More than one-half of the total area of the tableland division is alienated, and almost one-third of the area occupied is owned by the Crown. The system of private renting is much less extensive than in the coastal districts, only 4.4 per cent. of the area alienated, or 3.1 per cent. of the total area occupied, being held in this way. In addition, there were 346 share-farmers on 243 holdings, comprising 45,069 acres of cultivation and 9,443 acres of dairy farms. As in the coastal division the proportion of alienated land suitable for cultivation is very small, but less than 22 per cent. of such land was cultivated in 1928-29.

The main purposes for which holdings were used in each division of the tablelands during 1928-29 are shown in the following table:—

*Principal Purpose for which Holdings were used.	Number of Holdings.			
	Northern Tableland.	Central Tableland.	Southern Tableland.	Total.
Agriculture only	161	1,337	66	1,563
Dairying only*	165	197	53	415
Grazing only*	2,416	3,408	2,577	8,401
Agriculture and Dairying*	83	225	11	319
Agriculture and Grazing*	692	2,113	299	3,104
Dairying and Grazing*	164	74	78	316
Agriculture, Dairying, and Grazing*	70	162	27	259
Poultry, Bees, Pigs, etc.	4	56	2	62
Unoccupied or used for other purposes	147	492	107	746
Total	3,901	8,064	3,220	15,185

* See comments on page 645.

Grazing pursuits predominate throughout, but a considerable proportion of the holdings is used for agricultural purposes.

Western Slopes.

The divisions of the Western Slopes contain gently undulating lands with a westerly trend, watered by the upper courses of the inland rivers, and an adequate and regular rainfall. These fertile areas are eminently suitable for agriculture and are the most productive portions of the interior. As yet they are only sparsely settled, and very great development is possible.

The area, number, and tenure of rural holdings in the various districts of the Western Slopes as at 30th June, 1929, are shown below:—

Division of Slopes.	Total Area of Division.	Holdings of 1 acre and upwards.	Area of Land occupied in Holdings of 1 acre and upwards for Agricultural and Pastoral purposes.					Area of Alienated Land suitable for Cultiva- tion. *
			Alienated *			Crown Lands.	Total.	
			Freehold	Private Rented.	Total.			
	acres 000	No.	acres. 000	acres. 000	acres. 000	acres. 000	acres. 000	acres. 000
North Western...	9,219	4,441	5,875	155	6,030	2,167	8,197	1,451
Central Western..	7,723	4,483	5,753	261	6,014	839	6,844	3,849
South Western ...	11,222	8,228	8,171	338	8,509	1,086	9,595	4,659
Total ...	28,164	17,152	19,799	754	20,553	4,083	24,636	9,959

* See explanation, page 641.

In these divisions settlement is most dense on the South-western Slope, but the proportion of occupied land is greatest in the northern districts. The proportion of Crown lands occupied in the whole division is 17 per cent. of the total. The area of land rented from private owners represents only 3.7 per cent. of the total area alienated and 3.0 per cent. of the area occupied. The area of alienated land suitable for cultivation is considerable, constituting over 43 per cent. of the total area of such land in the State. Slightly more than 48 per cent. of the alienated lands of the division are suitable for cultivation, and the proportion is as great as 64 per cent. in the Central-Western Slope. Only 26 per cent. of the suitable land in alienated holdings in the Slopes Division was under crop in 1928-29.

The following statement shows the principal purposes for which rural holdings were used in the Western Slopes Division in 1928-29:—

*Principal Purpose for which Holdings were used.	Number of Holdings in Division.			
	North-Western Slope.	Central-Western Slope.	South-Western Slope.	Total.
Agriculture only	246	242	1,046	1,534
Dairying only... ..	54	14	181	249
Grazing only	1,907	958	2,396	5,261
Agriculture and Dairying	204	36	141	381
Agriculture and Grazing	1,758	3,031	3,735	8,524
Dairying and Grazing	25	8	146	179
Agriculture, Dairying, and Grazing	75	55	324	454
Poultry, Bees, Pigs, etc.	23	5	16	44
Unoccupied or used for Other Purposes	149	134	243	526
Total	4,441	4,483	8,228	17,152

* See comments on page 645.

Mixed farming—agricultural and grazing—is the principal rural activity, but grazing predominates on the North-Western Slope, where the lands fit for agriculture are relatively of small extent. The number of holdings used principally for agricultural purposes is large, but dairying and small farming are not extensive.

Plains and Riverina.

The Plains of the Central Division, including the Riverina, constitute the eastern portion of a remarkable extent of almost level country, stretching from the last hills of the Western Slopes to the western boundary of the State, with an average width of 120 miles. They comprise the great sheep districts of the State and about 40 per cent. of the agricultural lands. Generally speaking, they are not well watered, the average rainfall is low, and its intermittency is a source of frequent loss. They are traversed by the western rivers in their lower courses, but they do not supply water to a very extensive area, as they are few and their flow is irregular. Railway facilities are not so good, as in the more easterly districts, but they are being improved steadily, particularly in the Riverina. Communication and transport to outlying districts depend mostly on motor and horse-drawn conveyances. Artesian water underlies a considerable area on the north, and bores serve to supply permanent water in a number of localities. In the south, sub-artesian bores are of great practical utility.

The following table shows the number, tenure, and extent of holdings occupied for agricultural and pastoral purposes in the division on 30th June, 1929:—

Plains of Central Division.	Total Area of Division.	Holdings of 1 acre and upwards.	Area of Land occupied in Holdings of 1 acre and upwards for Agricultural and Pastoral Purposes.					Area of alienated Land suitable for Cultivation. *
			Alienated.*			Crown Lands.	Total.	
			Freehold.	Private rented.	Total.			
	acres.	No.	acres.	acres.	acres.	acres.	acres.	acres.
	000		000	000	000	000	000	000
North ...	9,580	1,927	4,602	93	4,695	2,797	7,492	972
Central...	14,811	2,482	7,626	449	8,075	5,338	13,413	2,305
Riverina	17,021	7,500	13,092	387	13,479	2,519	15,998	6,163
Total ...	41,412	11,909	25,320	929	26,249	10,654	36,903	9,440

* See explanation, page 644.

The existence of a closely-settled but comparatively small area of irrigated lands in the Riverina partly accounts for the density of settlement in that division. There were 1,554 holdings in the Murrumbidgee Irrigation Area embracing 257,456 acres inclusive of certain attached lands outside the Irrigation Area. Seventy-one per cent. of the area occupied in the Central Plains Division has been alienated, but while the proportion alienated is 61 per cent. of the total area in the northern districts, it is 84 per cent. in the Riverina, where the land is more productive.

The area held under the system of private renting is of small extent, being less than 4 per cent. of the total area alienated. The area of Crown lands occupied is considerable in all divisions, and in the central districts it exceeded the area of occupied alienated lands until 1926-27.

Share-farming is not extensive in the north, but in the Riverina 553 holdings are occupied by 798 share-farmers, who had 245,528 acres in cultivation in 1928-29. Only 21 per cent. of the alienated land in the Northern Plains is considered suitable for agriculture, but the proportions in the Central Plains and Riverina are 29 and 46 per cent. respectively.

The following table shows the main purposes for which the holdings in the Central Plains Division were used in 1928-29:—

Principal Purpose for which Holdings were used.*	Number of Holdings in Plains of Central Division.			
	North.	Central.	Riverina.	Total.
Agriculture only	23	153	1,849	2,025
Dairying only*	7	6	66	79
Grazing only*	1,239	1,693	1,318	4,250
Agriculture and Dairying*	1	1	79	81
Agriculture and Grazing*	579	552	3,754	4,885
Dairying and Grazing*	4	6	16	26
Agriculture, Dairying, and Grazing*	4	2	192	198
Poultry, Bees, Pigs, etc.	2	...	1	3
Unoccupied or used for other purposes	68	69	225	362
Total	1,927	2,482	7,500	11,909

* See comments on page 645.

While grazing, with mixed farming and agriculture, predominates in the northern districts, agriculture assumes increasing importance in the south, and, combined with grazing, it predominates in the Riverina. On the irrigated lands of the Murrumbidgee a considerable number of holdings are used for small farming, and this accounts for the greater part of the holdings used for agriculture and for dairying in the Riverina. Nevertheless, taking into account the areas shown in the previous table, the existence of agricultural pursuits is seen to have a very pronounced effect on the density of settlement.

Western Division.

The plains of the Western Division will probably never be developed into a productive region maintaining a population commensurate with their area. One-third of the division receives less than 10 inches of rain per year and practically the whole of the remainder less than 15 inches. Though the soils are uniformly fertile, the lack of rain, permanent water and grasses, and the high rate of evaporation, ranging up to 90 inches per year, render it unproductive in a high degree. Except on a few small irrigated areas there is scarcely a sign of agriculture or dairying, and by reason

of the small rainfall, the sheep-carrying capacity of the land is only about one-fifth as great as that of the plains further east; but the climate is well suited to the production of high-grade merino sheep. It is a lonely region, for the most part occupied in large holdings on a long lease tenure. It presents an immense field for scientific development, but its possibilities are problematical. Whether irrigation from the Murray and the vast lake reservoirs of the South Darling, or from the artesian water zone of the north, combined with dry-farming methods, will render any extensive areas adaptable to agriculture, or whether water and fodder conservation will render it capable of maintaining large numbers of sheep and suitable for closer settlement, remain questions which are not likely to be considered until settlement in the more attractive easterly regions has made very great advance. It is contended, however, that in the south there are large areas which only require railway facilities to render them profitable for agriculture. At present, excluding the mining districts, it is a vast region comprising two-fifths of the area of the State, producing less than one-sixth of the pastoral produce, and practically nothing besides, and inhabited by less than 20,000 persons (one person to 6 square miles) or one-hundredth part of the population of the State. Near the western boundary, however, is situated one of the richest silver-lead fields of the world, and in the large mining town of Broken Hill there is a population of over 23,000 persons. In the eastern part of the division exist extensive copper deposits, which formerly maintained thriving settlements at Cobar, Canbelego, and Nymagee, but with the suspension of mining activities the population of these localities has decreased. For the rest, the division possesses only one town, Bourke, with a population exceeding 1,500, five exceeding 500, and about twenty smaller townships.

The following table shows the number and extent of holdings in the Western Division as at 30th June, 1927:—

Area Series (alienated and Crown lands combined).	East of Darling.		West of Darling.	
	No. of Holdings.	Area of Holdings.	No. of Holdings.	Area of Holdings.
Acres.		Acres.		Acres.
1- 3,000	392	103,851	142	85,735
3,001- 10,000	79	510,637	65	465,547
10,001- 20,000	164	2,380,575	115	1,523,670
20,001- 50,000	242	7,495,068	169	5,329,802
50,001-100,000	77	5,096,619	92	6,323,365
Over 100,000	92	18,800,169	103	29,981,139
Total	1,046	34,386,919	686	43,709,258

Although the area west of the Darling constitutes more than one-half of the total area occupied, the number of holdings in all but the two largest groups is less than in the eastern sector. Over 62 per cent. of the total area is occupied by 195 holdings averaging 250,000 acres each.

The total area of alienated land in the rural holdings in the Western Division as at 30th June, 1929, was only 1,539,250 acres, and of this 23,833 acres are privately rented. The total area of Crown lands in rural holdings was 77,498,055 acres. Of the total area of land occupied only 14,278 acres were under crop in 1928-29, although 145,007 acres of the alienated land were considered by the occupiers to be suitable for cultivation. The unimproved value of the alienated land was returned as £852,670, and the improved value as £2,572,620.

VALUE OF MACHINERY USED IN RURAL INDUSTRIES.

A comparison of the value of agricultural, pastoral, and dairying implements and machinery in use on rural holdings during various years since 1901 is shown in the following table, allowance being made for depreciation:—

Season	Farming.	Dairying (excluding Machinery in Factories).	Pastoral.*	Total Value.
	£	£	£	£
1900-01	2,065,780	237,220	754,050	3,057,050
1901-06	2,557,260	365,440	1,120,990	4,043,690
1910-11	3,414,620	534,740	1,483,080	5,432,440
1915-16	5,362,030	570,950	2,015,050	7,948,030
1920-21	7,120,380	910,260	3,141,030	11,171,670
1922-23	8,536,170	1,124,960	3,816,250	13,477,380
1923-24	8,799,350	1,038,380	3,825,920	13,713,650
1924-25	9,427,730	1,119,290	4,106,820	14,653,840
1925-26	9,588,320	1,162,850	4,329,910	15,081,080
1926-27	9,837,190	1,232,290	4,928,300	15,997,780
1927-28	10,849,510	1,229,430	4,975,180	17,054,120
1928-29	11,045,550	1,214,670	5,067,940	17,328,160

* Includes in many cases farming implements used on pastoral holdings.

The foregoing figures are exclusive of the value of travelling machinery, *e.g.*, harvesters, chaffcutters, etc., for which the records show a value of £37,065 in 1928-29.

AGRICULTURAL AND PASTORAL LABOUR.

Particulars of persons above the age of 14 years permanently engaged in farm work on a rural holding are collected annually. They are classified according to status, and the amount of the salaries and wages paid to employees in receipt of remuneration is ascertained. Returns have been obtained since 1922-23 concerning wages paid to temporary hands employed by landholders during harvesting and shearing operations and for other casual work.

The number of persons permanently engaged in farm work on rural holdings during the year ended 30th June, 1929, is shown below, together with the amount of wages paid to permanent and casual employees during the year:—

Capacity.	Males.	Females.	Total.
	No.	No.	No.
Owners, Lessees, and Share-farmers	66,134	914	67,048
Permanent employees receiving wages... ..	34,234	756	34,990
Relatives not receiving wages	17,495	9,007	26,502
Total	117,863	10,677	128,540
Wages paid (including value of board and lodging):—	£	£	£
Permanent employees	6,475,306	74,280	6,549,586
Casual employees	3,041,384	9,177	3,050,561

Of the relatives not receiving wages, 8,295 males and 8,453 females above the age of 14 years were employed in the coastal districts, where dairying is the principal farming activity. This accounts for nearly 92 per cent. of the number of females thus employed.

Returns received from farmers show that the total amount of wages paid to permanent employees during the year was £5,039,403, in addition to board and lodging, etc., valued at £1,510,183, or a total of £6,549,586, the average remuneration, on the basis of these figures, being £189 per annum of males and £98 per annum to females. An examination of the individual returns, however, shows that the amount assessed as the value of the board and lodging is more or less of an estimate. The wages paid to casual employees amounted to £2,711,774 in addition to "keep," valued at £338,787.

The following table provides a comparison of the number of persons permanently engaged in rural industries, and of the amount of wages paid by landholders to permanent and casual employees:—

Year ended 30th June.	Persons engaged Permanently in Farm Work on Rural Holdings.*†			Wages paid to Landholders' Employees.*†		
	Males.	Females.	Total.	Permanent.	Casual.	Total.
				£	£	£
1923 ...	120,899	16,423	137,322	6,296,632	2,246,413	8,543,045
1924 ...	120,352	15,270	135,622	6,179,490	2,471,742	8,651,232
1925 ..	123,225	16,255	139,480	6,630,447	2,998,632	9,629,079
1926 ..	120,994	16,288	137,282	6,691,455	3,216,234	9,907,689
1927 ..	119,920	14,245	134,165	6,867,051	3,440,250	10,307,301
1928 ...	120,680	13,544	134,224	6,820,228	3,274,110	10,094,338
1929 ..	117,863	10,877	128,740	6,549,586	3,050,561	9,600,147

* Including value of keep. † Excluding persons engaged in domestic duties, etc.

It would appear that in some cases the wages paid to contractors engaged in work on rural holdings are included in the amounts paid to casual workers.

RURAL FINANCE.

The problem of promoting effective rural settlement in New South Wales has been associated closely with that of rural finance. While comparatively few settlers have possessed sufficient capital to purchase land outright from the Crown, there has been a general desire to acquire a freehold tenure, neither private nor State tenancy proving popular. Moreover, the proper development of rural holdings requires the investment of much capital for lengthy periods, and facilities for temporary financial accommodation, particularly during periods of drought.

The Land Act of 1861, aiming to encourage the settlement of an agricultural population beside the pastoral lessees, introduced "free selection before survey" and sales of Crown land by deposit and instalments with conditions as to residence, etc. By this means much more land was sold in the following twenty-three years than was sold at auction, and since 1889 alienation has been almost exclusively by conditional purchase. Beyond the introduction of this plan of selling Crown lands on terms, little was done to provide financial aid for settlers until the end of the last century, when the agricultural and dairying industries were developing, and droughts were impeding settlement.

In 1899 an Advances to Settlers Board was appointed by the Government to make loans to farmers in necessitous circumstances or embarrassed by droughts. Advances were limited to £200 for a term of ten years at 4 per cent. interest. The scope of the Act was widened in 1902 when the Board was empowered to make advances to farmers for any approved purpose up to £500, repayable within thirty years.

In 1907 the functions of the Board were taken over by the Commissioners of the Government Savings Bank, and the limit of individual advances was raised to £2,000. By 1921, when the Rural Bank was established to carry on and extend the work, the outstanding advances amounted to £3,250,000, secured by mortgages from 7,000 borrowers. At 30th June, 1929, there were 8,609 long-term advances, current for an amount of £5,951,428, and 9,424 overdraft loans for £6,938,041.

In 1901 a closer settlement policy was introduced by the Government with a view to acquiring and subdividing large estates and leases suitable for closer settlement. Operations under this scheme commenced actively in 1905, and by 30th June, 1929, an area of 4,019,082 acres had been acquired at a capital cost of £14,302,137, and allotted in 7,849 farms. In addition, at 30th June, 1929, about 1,067,158 acres comprised in large holdings within 15 miles of railway lines, contemplated or recently constructed, were under proclamation, limiting the value at which they might be resumed by the Government for purposes of closer settlement. In April, 1923, the Rural Bank inaugurated a scheme of advancing money for the purchase of farms created by subdivision.

Of similar character to the schemes of closer settlement was the entry by the Government upon a scheme of irrigation in connection with the Murrumbidgee River (in 1906) to provide ultimately about 5,000 farms. Here settlers are assisted by advances and by the provision of factories to handle their products. Another large irrigation scheme has been initiated in connection with the Murray River. The Government also undertakes to finance the construction of shallow bores, weirs, etc., when settlers are willing to manage them, and in some cases, to repay by instalments the capital cost.

The marketing difficulties of the war period necessitated a further extension of Government activity. The disposal of most of the primary products came within the purview of legislation, partly to assist settlers in their difficulties, and partly to secure control of supplies necessary for prosecuting the war. Such control, however, had ceased by 1921.

In 1915 certain schemes of limited scope were initiated by the Departments of Lands and Agriculture to assist farmers by loans to cultivate new areas and to relieve necessitous farmers. During the severe drought of 1919-20 a sum of £2,000,000 was made available by two special local loans to assist farmers whose ordinary commercial credit had been destroyed by the bad seasons. The advances were administered by the Rural Industries Board, instituted in December, 1919. Particulars of these operations are shown below.

In the Commonwealth Bank of Australia a rural credit department was established in October, 1925, to assist the marketing of the products of the rural industries. For this purpose advances for a period not exceeding one year may be made to banks, co-operative associations, etc., and bills secured on primary produce may be discounted on behalf of these institutions. Further particulars regarding the departments are shown on page 190 of this Year Book.

The Governments of the State and of the Commonwealth provide assistance to settlers to enable them to construct fencing to protect their holdings from the ravages of rabbits and wild dogs. Details are published in the chapter of this volume entitled "Pastoral Industry."

Advances by Rural Industries Board.

The Rural Industries Board was formed on the 1st December, 1919—

- (a) to take over, consolidate, and collect all advances by the State for drought relief, seed wheat, and clearing land since 1915, and
- (b) to extend the scope of relief to necessitous farmers.

In 1923 the Board was dissolved and its functions were continued by the Rural Industries Branch of the Department of Agriculture.

A sum of £437,006 was advanced between 1915 and 1919 under schemes controlled by the Departments of Lands and Agriculture. Of this, £259,794 were repaid or otherwise adjusted, and debit balances amounting to about £177,000 were taken over by the Board at the aforementioned date, and the subsequent operations are set out in the following table:—

Year ending 30th June.	Adminis- tration Costs.	Advances.	Interest charged on ad- vances.	Repayments.		Bad Debts written off.	Balances due (ap- prox.).	No. of Debtors.
				Principal.	Interest.			
1 Dec., 1919, to 30 June, 1922	£	£	£	£	£	£	£	...
1922	62,630	2,152,300*	105,666	1,817,792	92,848	...	347,416	...
1923	13,200	159,443	24,639	80,517	12,239	4,812	433,930	...
1924	12,375	237,414	32,015	118,673	16,859	1,634	566,193	...
1925	12,337	121,120	28,444	192,134	38,166	4,392	481,065	3,478
1926	12,495	151,788	22,222	242,020	18,565	14,533	379,957	3,465
1927	12,608	85,939	14,662	165,869	17,975	2,285	294,449	2,579
1928	13,251	428,350	9,251	41,027	7,117	10,758	673,148	4,200
1929	15,621	396,493	29,595	401,416	31,157	850	665,813	3,687
1930	15,278	690,594	36,421	213,102	21,255	29,018	1,639,443	5,500
Total...	169,795	4,333,551	302,915	3,272,550	256,191	68,282	...	...

* Including balances taken over from other Departments (£177,000) and Cash Sales from stocks to persons other than necessitous farmers (£277,000). † Not available.

Originally operations were restricted to assisting wheat-growers, but, in 1920, assistance was afforded also to dairy-farmers and small graziers. More recently the scope of operations has been extended to include farmers of considerable variety whose circumstances prevented them from obtaining assistance through usual commercial channels; thus on a relatively small scale assistance has been granted to orchardists, tobacco growers, rice growers, farmers suffering loss from floods, fire and grasshopper pests, pig farmers who sustained the loss of their herds as the result of an outbreak of swine fever, etc.

Most of the advances, however, are made to wheat-farmers, and the assistance granted usually takes the form of orders issued upon suppliers of the commodities required, i.e., fodder, seed wheat, fertiliser, tractor fuel, household supplies, and so on. Payment is made direct to suppliers who render their accounts to the Branch accompanied by the farmer's acknowledgment of receipt of the goods. Cash advances are made only in exceptional circumstances.

Until recent years advances were made in cash at the rate of 5s. per acre on newly fallowed land. The object of this form of advance was to encourage better farming methods, and consequently operations were not confined to necessitous farmers only. The advantages of fallowing are now fully recognised throughout the State, and the desired results having been achieved, fallowing assistance is granted only to necessitous farmers on the lines of general assistance.

Interest has been charged on advances at the rate of 6 per cent., the rate being increased to 7 per cent. on overdue accounts, but since the 1st July, 1925, the additional charge of 1 per cent. has been discontinued.

Security taken for the advances mainly comprises Crop Liens and Promissory Notes, as in the majority of cases farmers receiving assistance lack the means of furnishing more tangible security which would enable them to obtain accommodation from ordinary financial institutions. Having regard to the somewhat hazardous nature of security taken the number of bad debts incurred has been relatively small.

Government Guarantee Board.

Under the Advances to Settlers (Government Guarantee) Act, passed towards the end of December, 1929, a Government Guarantee Board was constituted with power to guarantee to the banks repayment of advances made to settlers. The Board consists of the Minister for Agriculture (as Chairman), the Colonial Treasurer, and the Officer-in-Charge of the Rural Industries Branch. The amount which can be guaranteed in respect of any one settler must not exceed £3,000, and in the case of a co-operative society registered under the provisions of the Co-operation, Community Settlement, and Credit Act, 1924, it must not exceed £25,000. The total amount which may be guaranteed by the Board in any one year is not to exceed £2,500,000. No new guarantees are to be given by the Board after January, 1932, but guarantees given before that date may be continued for such time as may be approved by the Board.

The Guarantee Board has been functioning since 23rd December, 1929, and up to October, 1930, had approved of 660 guarantees totalling approximately £420,100.

Advances by the Rural Bank.

Under authority of the Government Savings Bank (Rural Bank) Act, 1920, steps were taken early in 1921 to establish a rural bank in New South Wales. The new bank was placed under the direction of the Commissioners of the Government Savings Bank, who continue on an extended basis the operations transacted previously by the Advances to Settlers Department.

The primary object of the bank is to afford greater financial assistance to primary producers than is usually obtainable from other institutions, and thus to promote rural settlement and development.

The Commissioners are empowered to make advances upon mortgage of land in fee-simple, and of land held under conditional purchase or lease, settlement purchase or lease, and homestead grant or selection. The advances are made to repay existing encumbrances, to purchase land, to effect improvements, to utilise resources, or to build homes. By this means material assistance is afforded to both prospective and established settlers.

Funds are obtainable from deposits at current account, fixed deposits, and the issue of deposit stock, rural bank debentures, and inscribed stock. Interest is allowed on fixed deposits at current bank rates, and current accounts are subject to trading bank conditions.

Loans are made only to persons engaged in primary production, or in closely-allied pursuits. The loans are of three kinds—(a) Overdrafts on current account with interest at the rate of 6½ per cent.; (b) instalment loans, repayable by equal half-yearly instalments of interest at 6½ per cent. and principal extending over thirty-one years; and (c) fixed loans for limited terms. The security required may be land, either freehold or held under any Crown tenure, stock, plant, crops, wool, etc.

The Commissioners are empowered to make advances to assist the subdivision of large estates. For this purpose advances up to 80 per cent. of the Commissioners' valuation of the security, or £3,000, may be made on lands which have a freehold or certificated conditional purchase title. In

order to facilitate negotiations for sale, the Commissioners may issue a certificate to either the vendor or the purchaser, setting forth the amount they are prepared to advance upon a sound title in any such farm. The Act prescribes that a fixed or amortization loan to any individual may not exceed £2,000.

Approximately 180 branches of the Bank have been opened throughout the State.

In June quarter, 1930, the amount of deposits with the Rural Bank was £1,672,250 at current account and £8,808,260 at fixed deposit, while outstanding advances amounted to £14,409,630.

The following table shows the transactions in long term and fixed loans by the Advances to Settlers Department or the Rural Bank in various years since 1911:—

Year ended 30th June.	Advances Made.			Balances Repayable.		
	Number.	Total Amount.	Average.	Number.	Total Amount.	Average.
		£	£		£	£
1911*	838	331,693	395	3,754	1,074,359	286
1913*	1,386	771,272	556	5,094	2,051,132	403
1915	860	387,715	451	5,860	2,514,078	429
1921	1,365	813,525	596	7,242	3,423,871	473
1924	1,081	888,479	822	9,766	5,526,744	566
1925	603	587,508	974	9,749	5,721,684	587
1926	265	444,065	1,676	9,252	5,661,368	612
1927	332	598,879	1,804	8,933	5,783,776	648
1928	305	437,195	1,430	8,676	5,759,410	664
1929	685	807,550	1,179	8,609	5,951,428	691
1930	581	703,425	1,211	8,743	6,272,685	718

* 31st December.

In addition, short-term loans in the nature of overdraft are provided by the Rural Bank to settlers or persons carrying on industries immediately associated with rural pursuits. Particulars of these are shown below:—

Year ended 30th June.	Advances made during year.			Advances current at end of year.	
	Number (New).	Number (Additional).	Amount.	No.	Amount.
			£		£
1922 ...	1,383	.....	980,375	1,364	728,584
1923 ...	1,565	356	794,499	2,743	1,381,113
1924 ...	1,827	521	1,081,335	4,205	2,144,333
1925 ...	1,710	511	1,196,280	5,291	2,830,915
1926 ...	1,746	675	1,342,632	6,277	3,618,577
1927 ...	2,115	994	1,996,925	7,001	4,746,220
1928 ...	3,465	1,273	2,231,790	8,527	6,098,465
1929 ...	2,225	1,462	2,012,505	9,424	6,938,041
1930 ...	1,970	1,895	1,992,785	10,691	7,988,275

The net profit of the Bank for the year 1929-30 was £87,663, which was added to the reserve fund, making it £527,368 after £34,264 had been absorbed in writing off loans.

Other Advances to Settlers.

Particulars of the number and amount of registered loans made on the security of live-stock, wool, and growing crops are published on page 222 of this Year Book.

LAND LEGISLATION AND SETTLEMENT.

AREA OF NEW SOUTH WALES.

THE area of New South Wales, including Lord Howe Island (5 square miles) and the Federal Capital Territory (about 940 square miles), as stated on a previous page in this Year Book, is estimated at 310,372 square miles, or 198,638,080 acres, being a little over two and a half times the combined area of Great Britain and Ireland. Excluding the surface covered by rivers and lakes, etc. (2,969,080 acres), the land area within the boundaries of the State is 195,669,000 acres, or about 305,733 square miles. The formal transfer on 1st January, 1911, of 583,660 acres at Yass-Canberra, and of 17,920 acres at Jervis Bay in 1915, to the Commonwealth Government as Federal Capital Territory, reduced the land surface of the State to 195,067,420 acres.

LAND ADMINISTRATION.

At the foundation of the Colony in 1788, the whole of the lands of the State vested in the British Crown.

The administration of public lands passed entirely under local control by virtue of the Constitution Act on the establishment of responsible government in 1856. Since that year the administration has been directed by a Secretary for Lands, who is a member of the State Parliament and of Cabinet. A Department of Lands was created and a permanent Under-Secretary appointed, with defined powers subordinate to those of the Minister. This system of administration may be described as political control through a permanent salaried staff.

Control of the lands of the Western Division is vested in the Western Land Board, consisting of three commissioners. There are twelve ordinary Land Board Districts.

The Eastern and Central Divisions are subdivided into ninety-one Land Districts, in each of which is stationed a Crown Land Agent, whose duty it is to receive applications and furnish information regarding Crown lands. Groups of these districts are arranged in larger areas, under the control of twelve local Land Boards. There are also special Land Districts for the Yanco and Coomealla Irrigation areas. These Boards, sitting as open courts, hear and determine, in the first instance, many minor matters as provided by the Act and Regulations.

*Land and Valuation Court.**

A Land and Valuation Court, whose awards and judgments have the same force as those of the Supreme Court, was constituted in 1921 in continuance of the Land Appeal Court. To this Court are referred appeals, references, and a number of other matters under the Crown Lands Acts, the Pastures Protection Act, the Closer Settlement Acts, the Water Act, the Public Roads Act, and certain other Acts.

Territorial Divisions.

The State is divided, for administrative purposes, into three territorial divisions, Eastern, Central, and Western, the boundary lines running approximately north and south, as shown on the map in the frontispiece. The conditions governing alienation and occupation of Crown Lands differ in each of the three divisions of the State.

The Eastern Division has an area of 60,661,946 acres (exclusive of an area of 601,580 acres of Commonwealth territory), and includes a broad belt of land between the sea-coast and a line nearly parallel to it, thus

* Further particulars of Local Land Boards, and of the Land and Valuation Court, are published on page 513 of this Year Book.

embracing the coastal districts of the State, as well as the tablelands. In this division is excellent agricultural land, and it includes all the original centres of settlement most accessible to the markets of the State.

The Central Division embraces an area of 57,055,846 acres, extending from north to south between the western limit of the Eastern Division and a line drawn along the Macintyre and Darling Rivers; Marra Creek, the Bogan River, across to the River Lachlan, along that river to Balranald, and thence to the junction of the Edward River with the Murray. The area thus defined contains the eastern part of the upper basin of the Darling River in the northern part of the State, and the basins of the Lachlan, the Murrumbidgee, and other affluents of the Murray in the southern portions. The land in this division is still devoted mainly to pastoral pursuits, but about 3,000,000 acres are cultivated for wheat in a normal season.

The Western Division is situated between the western limit of the Central Division and the South Australian border. It contains an area of 80,318,708 acres, watered by the Darling River and its tributaries, and is mainly devoted to pastoral pursuits. Water conservation and irrigation, and railway and other means of communication may ultimately make agriculture possible in parts of this large area. However, legislation in regard to the occupation of the lands of the district is based upon the assumption that for many years to come there will be little inducement for agricultural settlement.

DISPOSAL OF LANDS OF NEW SOUTH WALES.

The following table provides a brief summary of the manner in which the lands of the State were held as at 30th June, 1929, distinguishing lands in the Western Division from the remainder of the State:—

Manner of Disposal.	Area.		
	Eastern and Central Divisions.	Western Division.	Whole State.
(1) Absolutely alienated, dedicated†, &c. (less area resumed for resettlement)	Acres. 64,959,522‡	Acres. 2,031,282‡	Acres. 43,491,964§
(2) In course of alienation ... ..	...	...	23,753,786
(3) Virtually alienated (<i>i.e.</i> , held under perpetual, conditional, and conditional purchase leases)	17,535,754	97,665	17,633,119
(4) Under Crown and settlement leases alienable wholly or in part	8,427,846	...	8,427,846
(5) Under improvement, scrub, inferior lands and prickly-pear leases with limited rights of alienation... ..	1,605,671	...	1,605,671
Total area under foregoing tenures	92,528,493‡	2,128,947‡	94,912,386§
(6) Under other long leases with no right of alienation unless with approval of Minister¶	1,217,769	76,109,913	77,327,682
(7) Under short lease and temporary tenures (annual lease, permissive occupancy and occupation license)	7,475,715	436,181	7,911,896
(8) Under forestry leases, etc., wholly within dedicated State forests	1,750,361	...	1,750,361
(9) Under mining leases and permits	264,660	8,871	273,531
(10) Reserves, dedicated State forests not under pastoral occupation and other lands neither alienated nor leased	14,480,794§	1,634,796§	15,560,644‡
Total Area	117,717,792	80,318,703	198,036,500

† Exclusive of 5,193,222 acres of dedicated State forest in Eastern and Central Divisions, and 31,150 acres in Western Division, considerable parts of which are covered by leases for pastoral purposes and included under appropriate headings below.

‡ Exclusive of lands dedicated for public and religious purposes, viz., 254,949 acres in the whole State, the divisions of which cannot be stated.

§ Inclusive of foregoing lands dedicated for public and religious purposes.

¶ Comprising special, section 18, snow lands, residential, irrigation leases at Hay and Cullwaa and Western Lands leases.

Particulars of the areas, under and the conditions attaching to, each of these tenures are given on later pages.

In considering the matter of lands remaining within the disposal of the State for new settlement, it is important to note that the Eastern and Central land divisions embrace practically the whole of the lands in the

State which receive an average annual rainfall of 15 inches or more, and that the rainfall in the Western Division ranges from that average down to 8 inches in the extreme north-west. This circumstance places important limitations upon the utility of land in the Western Division, practically none of which is utilised for agricultural purposes. It is sparsely occupied, being held in large pastoral holdings lightly stocked.

The total area of land embraced within freeholds, dedications, purchases by deferred payments, and leases alienable wholly or in part at 30th June, 1929, was 94,912,386 acres and, of this area, over 92,500,000 acres were in the Eastern and Central land divisions. By reason of the indefinite nature of the conditions governing the conversion of leases to freehold tenures, it is not possible to ascertain accurately how much of the lands embraced in this area will not revert to the disposal of the Crown, but, assuming that one-half of the areas remaining under Crown, settlement, scrub and improvement leases fulfil conditions requisite for conversion into tenures leading to freehold, it is estimated that the area of former Crown lands in the Eastern and Central Divisions placed definitely beyond State control is in the vicinity of 87,000,000 acres and probably it is appreciably more. Of the remaining area of about 31,000,000 acres in the Eastern and Central Divisions, about 8,000,000 acres are held under long leases, with no rights of conversion, and numbers of these revert to the Crown for disposal year by year; approximately 7,500,000 acres are held under short lease and temporary tenures, and the balance is comprised within reserves of various kinds—commons, roads, dedicated State forests not under lease administered by the Department of Lands, unalienated town lands, and lands neither alienated nor leased, including inferior Crown Lands not held under any tenure.

In the Western Division the area placed permanently beyond State control is approximately 2,250,000 acres, but nearly 74,000,000 acres out of a total area of 80,000,000 acres are held under long-lease tenures, practically all of which expire in 1943, subject to the Western Lands (Amendment) Act of 1930 and later amendments. The area under short lease and temporary tenures is approximately 1,060,000 acres, and there remain approximately 750,000 acres of unoccupied lands of low grade and about 890,000 acres of unalienated town lands, commonages, beds of rivers, etc.

It has been estimated that the area of land in the State unfit for occupation of any sort does not exceed 5,000,000 acres.

Alienation Prior to 1861.

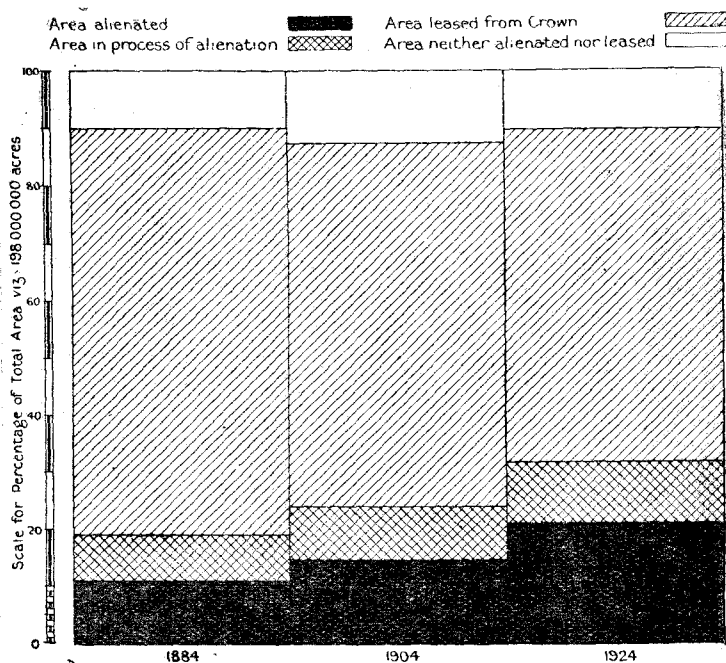
From the early days of settlement until the year 1861 the Crown disposed of land, under prescribed conditions, by grants and by sales, so alienating, by the end of 1861, an aggregate area of 7,146,579 acres, made up as follows:—

	Acres.
1. By grants, and sales by private tender to close of 1831	3,906,327
2. By grants in virtue of promises of early Governors made prior to 1831, from 1832-40 inclusive	171,071
3. By sales at auction, at 5s., 7s. 6d., and 10s. per acre, from 1832-38 inclusive	1,450,598
4. By sales at auction, at 12s. and upwards per acre, at Governor's discretion, from 1839-41 inclusive	371,447
5. By sales at auction, at 20s. per acre, from 1842-46 inclusive	20,250
6. By sales at auction and in respect of pre-emptive rights, from 1847-61 inclusive	1,219,375
7. By grants for public purposes, grants in virtue of promises of Governors made prior to the year 1831, and grants in exchange for lands resumed from 1841-61 inclusive	7,601
Total area absolutely alienated as to 31st December, 1861	7,146,579

In the year 1861 the first Crown Lands Act was passed, and from that date alienation was controlled by the laws of the State Government.

Progress of Alienation.

The following graph shows the progress of alienation at 20-yearly intervals since 1884.

LAND TENURE - 1884, 1904 & 1924

The differently shaded portions of the Graph represent the percentage of the total area of New South Wales which was alienated, in process of alienation under systems of deferred payments, and held under lease from the Crown

A brief account of the spread of settlement appears on page 679 of the Year Book for 1928-29. Details are shown hereunder of the areas of freehold land resumed for re-settlement and of the Crown Lands remaining alienated, after deducting the areas resumed for re-settlement, at intervals since 1861:—

As at 30th June.	Area of freehold resumed for re-settlement.	Area remaining absolutely alienated.	As at 30th June.	Area of freehold resumed for re-settlement.	Area remaining absolutely alienated.	As at 30th June.	Area of freehold resumed for re-settlement.	Area remaining absolutely alienated.
	acres.	acres.		acres.	acres.		acres.	acres.
1861*	...	7,146,579	1901*	...	26,407,376	1926	2,502,668	42,323,857
1871*	...	8,630,604	1906	36,719	31,362,302	1927	2,503,533	42,779,522
1881*	...	19,615,299	1911	605,641	36,234,256	1928	2,508,126	43,184,213
1891*	...	23,682,516	1916	1,089,079	37,783,666	1929	2,524,197	43,491,964
1896*	...	24,698,195	1921	1,857,216	39,679,986			

* As at 31st December.

The area shown above as remaining alienated represents lands absolutely alienated and is exclusive of lands under perpetual lease which were formerly included in similar computations as being virtually alienated.

The Federal Territory at Canberra, containing 173,451 acres of alienated land, was transferred to the Commonwealth on 1st January, 1911. This area has, therefore, been excluded from the figures shown for 1911 and subsequent years. The principal method of alienation is by conditional purchase, which

was introduced in 1861. Lands sold by this means are not included as alienated until all payments have been made and deeds have been issued. For this reason the influence of the introduction of conditional purchases does not appear appreciable in the table until 1881. It is also understood that there is an appreciable area of land upon which all payments have been made and all conditions for alienation fulfilled, but, as deeds have not been issued, this area is included under conditional purchase in course of alienation.

The following table shows the areas of land alienated in New South Wales by each of the principal methods up to 30th June, 1929, and the area re-acquired for purposes of irrigation and closer settlement:—

Area.	Acres.
Granted and sold by private tender and public auction prior to 1862	7,146,579
Sold by auction, after auction, and under deferred payment sales since 1862	11,591,255
Sold by Improvement and Special Purchases	2,854,493
Sold by Conditional Purchase since 1862 (deeds issued)	23,442,489
Granted under Volunteer Land Regulations of 1867	172,198
Dedicated for public and religious purposes since 1862	254,946
Sold under Closer Settlement Acts (acquired and Crown Lands)	21,105
Suburban Holding Purchase	4,744
Soldiers' Group Purchase	1,471
Returned Soldiers' Special Purchases (deeds issued)	811
Week-end Lease Purchases (deeds issued)	437
Town Lands Lease Purchases (deeds issued)	27
Irrigation Farm Purchases	54
Sold by all other forms of sale	525,552
Total	46,016,161*
Less—	Acres.
Freehold land purchased for Closer Settlement	2,138,046
Freehold land purchased for Irrigation Settlements	212,700
Lands alienated in Federal Capital Territory prior to its transfer to the Commonwealth	173,451
	2,524,197
Land absolutely alienated as at 30th June, 1929	43,491,964

As has already been pointed out, there was, in addition, a considerable area of land under conditional purchase which awaited only the formality of the issue of deeds to make their alienation complete. This area is included in the following statement showing the areas in course of alienation by each of the principal methods as at 30th June, 1929:—

Area in course of Alienation.	Acres.
By Conditional Purchase	20,619,758
Under Closer Settlement Acts	2,680,924
As Group Settlement Purchases	431,692
As Suburban Holdings approved for purchase	9,665
As Returned Soldiers' Special Holdings approved for purchase	9,481
As Week-end Leases approved for purchase	41
Irrigation Lands Purchases	2,221
As Town Lands Leases approved for purchase	4
Total area in course of alienation at 30th June, 1929	23,753,786

* Inclusive of area alienated within Federal Territory prior to 1911.

The area of land shown above under the heading of settlement purchases relates to lands made available under the closer settlement policy inaugurated in 1904, which provided for the re-purchase of freehold lands and the resumption of certain leases, with compensation. These, with certain adjacent Crown lands, were made available for purchase on easy terms in home maintenance areas for settlers of small means. In 1916-17 the policy of providing land for returned soldiers was introduced, and led to a considerable expansion of closer settlement operations.

Area Leased at 30th June, 1929.

The total area of Crown lands leased in New South Wales as at 30th June, 1929, was 114,930,117 acres inclusive of 36,442,038 acres under the Crown Lands Acts, 76,464,187 acres under the Western Lands Acts, 1,750,361 acres under the Forestry Act, and 273,531 acres under the Mining Act. The area under each tenure is shown below:—

Lease.	Area.*	Lease.	Area.*
Perpetual Leases—	Acres.	Other Long Term Leases—	Acres.
Homestead Farm	3,995,621	Special Leases*	753,550
Homestead Selections and Grants*	1,193,737	18 Section Lease	173,780
Suburban Holdings	53,422	Snow Lands Lease	177,746
Returned Soldiers' Special Holdings	17,250	Residential Lease	8,752
Week-end Leases	232	Church and School Land Lease	11
Town Lands Leases	114	Western Lands Leases—	
Irrigation Farms (Murrumbidgee)	135,781	New	25,138,605
Town Blocks (Murrumbidgee)	209	Formerly under Crown Lands Act	50,971,308
Total	5,401,366	Irrigation Lands*†	103,941
Alienable Leases—		Total	77,327,693
Conditional Lease*	12,048,999	Short Term Leases—	
Conditional Purchase Lease	182,754	Annual Lease*	1,247,422
Total	12,231,753	Occupation License*	1,937,154
Leases alienable wholly or in part—		Preferential Occupation License*	469,132
Settlement Lease	2,967,596	Permissive Occupancy*	4,227,618
Crown Lease	5,460,250	Irrigation Lands*†	30,570
Total	8,427,846	Total	7,911,896
Leases with limited right of alienation—		Leased by Forestry Department—	
Improvement Lease	1,037,713	Forestry Leases and Occupation Permits	1,750,361
Scrub Lease	464,366	Leased by Mines Department—	
Inferior Lands Lease	69,192	Mining Lease and Permit*	273,531
Prickly-pear Lease	34,400	Grand Total	114,930,117
Total	1,605,671		

* Includes the following tenures in Western Division: 1,107 acres of homestead selections and grant, 96,558 acres of conditional lease, 44,511 acres of irrigation lands, 34,950 acres of annual lease, 46,416 acres of occupation license, 354,274 acres of permissive occupancies, and 8,871 acres of mining leases, besides the whole of the areas shown as Western Lands leases.

† Temporary tenure in irrigation areas pending development.

Certain of the perpetual leases, such as homestead farm, homestead selection and grant and irrigation farms, carry statutory rights of purchase, while practically the whole of the conditional leases and conditional purchase leases are convertible in this way. Settlement leases and Crown leases also may be converted into conditional purchases, but the area so converted

in any individual case, together with other freehold, alienable, or leased lands with more than five years to run held by the same individual, may not exceed a home maintenance area as determined by the Local Land Board. Where there is such an excess area of lease it is converted into a conditional lease without any right of further conversion, and the area of unconvertible conditional leases so created is included in the total shown in the table. The Crown Lands Amendment Act, 1930, made Crown leases convertible in their entirety without restriction.

Improvement and scrub leases are granted in respect of lands which require improvement before being made available for original holdings. Usually they are held in conjunction with other lands or in large areas, and the holder is given the right to apply for the conversion of sufficient to convert a home maintenance area into an alienable tenure during the last year of the currency of the lease. The holder also has the right to sell his lease, and considerable areas are transferred to persons eligible to convert. As a consequence, considerable areas of improvement and scrub leases do not revert to the disposal of the State.

Special leases may be purchased by their holders with the approval of the Minister, and so may the residential lease. All the leases under the Western Lands Act are situated in the Western Division, and the tenure may be extended subject to certain conditions of withdrawal for settlement and periodical re-appraisal of rentals.

The short-term leases enumerated represent Crown lands reserved for various purposes, as well as lands available for settlement, but not yet taken up. The forestry leases and occupation permits include only grazing leases which are wholly within State forests, and administered by the Forestry Department.

RESERVES.

The total area of reserved lands in the State as at 30th June, 1929, was 17,531,167 acres. Reserves are not necessarily unoccupied, considerable areas being held under annual, special, scrub, or forestry leases or on occupation license or permissive occupancy. Such are included under appropriate headings in the list of leasehold tenures shown above.

The following is a classification of reserves according to the principal purpose for which reserved:—

	Acres.
Travelling Stock	5,304,797
Water	669,601
Mining	1,160,069
Forest	2,366,444
Temporary Commons	388,023
Railway	51,422
Recreation and Parks	255,632
Pending Classification and Survey	3,570,896
From Conditional Purchase, within Goldfields	631,492
From Sale or Lease other than Improvement Lease	278,889
From Sale or Lease other than 18th Section Lease	83,583
Camping	364,891
Other	2,405,428
Total	17,531,167

The statement printed above is intended to give only an approximate idea of the relative extent of reserves of various kinds, and should not be taken as a measure of their absolute magnitude, because large areas are reserved for more than one purpose. For instance, the area principally reserved for forests is stated at only 2,366,444 acres, while the actual area of dedicated

forest lands at at 30th June, 1929, was 5,244,372 acres, and in addition 683,564 acres were under timber reserve, making a total of 5,907,936 acres. Of the area dedicated, 1,750,361 acres of leases, situated entirely within State forests, were let to graziers by the Forestry Department, 60,725 acres of State Forests under tenures of the Crown Lands Act were administered by the Forestry Department, and 89,014 acres, consisting of portions of leases not wholly within State forests, were administered by the Department of Lands.

Of the total area of reserves 12,305,024 acres, or 70 per cent., were situated in the Eastern and Central Divisions of the State.

An annual revision of the reserved lands is made with the object of withdrawing from reserve any area the continued reservation of which is not required in the public interest.

AREA AVAILABLE FOR SETTLEMENT.

The area of land within the disposal of the Crown without the necessity of resumptions and consequent compensation is not definitely ascertainable, since clauses providing for revocation or withdrawal have been inserted in a number of lease contracts, and considerable areas leased for long periods revert to the Crown periodically by the effluxion of time. Particulars of those areas are not available.

Apart from these, however, certain lands under reserve, in addition to the lands comprised in the following short leases, may be considered to have been within the disposal of the Crown at 30th June, 1929:—

Under Crown Lands Acts—		Area.
Occupation license (including 46,416 acres in Western		
Division)	.. .. .	Acres.
.. .. .	.. .. .	1,937,154
Preferential occupation license	.. .. .	469,132
Annual lease (including 34,950 acres in Western Division)	.. .. .	1,247,422
Permissive occupancy (including 354,274 acres in Western Division)	.. .. .	4,227,618
Under Western Lands Act—		
Occupation licenses	.. .. .	545,512
Preferential occupation license	.. .. .	74,542
Total .. .. .	.. .. .	8,501,380

With a view to classifying and bringing forward those areas which are suitable for settlement, systematic inspections of Crown lands are made in each district.

The following areas were available for the classes of holdings specified at 30th June, 1929:—

Original Holdings for—	For Ordinary Settlement. Acres.	For Returned Soldiers. Acres.	Total. Acres.
Crown Lease	1,018,078	11,800	1,029,878
Homestead Farm	77,733	...	77,733
Conditional Purchase (original)	3,667,211	...	3,667,211
Suburban Holding	3,025	...	3,025
Settlement Purchases	10,863	...	10,863
Other Forms of Lease	33,031	58	33,089
Additional Holdings (all classes)	548,203	253	548,451
Total	5,358,144	12,116	5,370,260

The area of 3,667,211 acres, shown above as available for original conditional purchases, consists mostly of unclassified Crown lands of a rather inferior nature. A considerable proportion of the lands comprising this area has been available for years, but has remained unselected.

EASTERN AND CENTRAL LAND DIVISIONS.

METHODS OF ACQUISITION AND OCCUPATION.

The acquisition and tenure of land in the Eastern and Central Land Divisions are controlled principally by the Crown Lands Act (consolidated in 1913) and its amendments, together with regulations thereunder. In addition, the Closer Settlement Acts, Returned Soldiers' Settlement Acts, and the Forestry, Mining, Irrigation, and Prickly Pear Destruction Acts regulate certain tenures for specific purposes.

By these Acts a great variety of tenures—more than thirty in number—have been created to suit the various circumstances of the lands and settlers of New South Wales and the changing character of rural settlement.

The principal means by which Crown lands in the Eastern and Central Divisions and lands in the Western Division remaining under the Crown Lands Act may be acquired, and the tenures under which they may be held, may be classified as follows:—

Non-Residential Tenures.	Tenures involving Residential Conditions.
Methods of Absolute Alienation.	
Auction sale.	Conditional purchase.
After-auction purchase.	Settlement purchase.
Special non competitive sales.	Returned soldiers' special holding.‡
Conditional purchase (40 to 320 acres).	Improvement purchase on goldfields.
Exchange.	Soldiers' Group Purchase.
Leases Alienable wholly or in Part.	
Improvement lease.	Conditional lease.
Scrub lease.	Settlement lease.
Inferior lands lease.	Crown lease.
Special lease.§	Homestead farm.‡
Special conditional purchase lease (up to 320 acres).	Homestead selection and grant.‡
Annual lease.	Conditional purchase lease.
Town lands lease.‡	Suburban holding.‡
Week-end lease.‡	Residential lease on goldfields.§
Prickly-pear lease.	Homestead lease.†
	Irrigation Farm lease.
	Non-irrigable lease.
	Town Lands lease (Irrigation Area).
Leases not Alienable.	
Occupation license.	Pastoral lease.*
Permissive occupancy.	Lease to outgoing pastoral lessees (section 18).
Occupation permit (forest lands).	
Forestry lease.	
Snow lease.	
Mineral and auriferous lease.	
Church and school lands lease.§	
* No holdings. † Holdings in Western Division only. ‡ Perpetual. § With consent of Minister.	

The rights of alienation attached to the various classes of leases shown above differ widely, and are usually subject to the qualification that the area to be alienated, together with all other lands held (other than non-convertible leases within five years of expiry), shall not exceed a home maintenance area. Conditional purchase leases, conditional leases, and (since 1930) Crown leases, are almost entirely alienable, while homestead farms, homestead selections and grants, and settlement leases are subject to restriction in regard to home maintenance area. Improvement leases, scrub leases, and inferior lands leases are alienable only when about to expire and are subject to reservation, the home maintenance limitation and other restrictions inserted in individual leases.

METHODS OF PURCHASE.

Conditional Purchase.

This method of alienation was introduced by the Crown Lands Act of 1861, and has become the most extensively used of all. Briefly, it is a system of Crown land sales by deposit and annual instalment, and all the principal leasehold tenures may be converted, under certain conditions, wholly or in part into conditional purchases, which may be considered the basal tenure of land settlement in New South Wales.

The outstanding feature of the tenure is the limitation placed upon the area of land which may be held by a conditional purchaser during the currency of his purchase. Lands available for conditional purchase comprise all Crown lands in the Eastern and Central land divisions other than those reserved from sale, leased for a term of years, within the boundaries of towns or other populated areas, or set apart for other classes of holdings. The area to be purchased under residential conditions may not be less than 40 acres, and must not exceed 1,280 acres in the Eastern land division, and 2,560 acres in the Central land division, or must not exceed 320 acres in either division when the buyer does not undertake to reside on the holding. Special areas without residential conditions, ranging up to 320 acres in the Eastern land division, and up to 640 acres in the Central land division, may also be made available.

Any conditional purchaser may take up the maximum area at once, if it is available, or may make a series of additional purchases as land becomes available. To facilitate this, a special tenure (conditional lease) has been created whereby a conditional purchaser may take up land not exceeding three times the area of his conditional purchase, and this may be converted into conditional purchase. The combined area so acquired may exceed the prescribed divisional limit only to make up a home maintenance area as determined in individual cases by the Local Land Board. Holders of freehold lands of at least 40 acres are permitted also to acquire lands as additional conditional purchases and conditional leases, provided the total area of each holding so increased does not exceed the divisional maximum nor a home maintenance area.

Applicants for lands under this tenure must have attained the age of 16 years if males, and 18 years if females, or 21 years in either case if the holding is non-residential. Alien applicants must have resided in New South Wales for at least twelve months, and must become naturalised within five years of acquiring the purchase.

The price of the land for a residential purchase is £1 per acre, unless otherwise notified, in addition to the value of improvements (if any) assessed by the Local Land Board. A deposit of 5 per cent. of the purchase money must be paid in addition to survey fee and stamp duty. The first annual instalment is due at the end of three years from the date of application and, at the holder's option, may be at the rate of 9d. or 1s. for each £ of the price of the land. Such payment comprises repayment of principal, with interest at the rate of $2\frac{1}{2}$ per cent. per annum. The term of purchase, according to the rate of instalment paid, is forty-one or twenty-eight years. Payment for improvements may be made in fifteen equal annual instalments, including interest at the rate of 4 per cent.

The conditions to be observed by purchasers include *bona fide* residence upon the holding for five years after confirmation unless modified by the Local Land Board; fencing or other improvements, as prescribed, to the value of at least 30 per cent. of the price of the land (but not exceeding £384) effected within three years, and to the value of 50 per cent. of the price of the land (but not exceeding £640) effected within five years of confirmation; and the payment of all instalments and prescribed charges.

The price of land taken up as a non-residential purchase is double that of a residential purchase, and the term of payment is twenty-seven years. Fencing to the value of £1 per acre, or other improvements to the value of £1 10s. per acre, must be effected within five years.

All applications connected with the purchases are considered by the Local Land Board, and certificates are issued to the holder by the chairman upon survey and confirmation, and a further certificate when all conditions, other than payment of balance of purchase money or survey fees have been fulfilled. After all conditions have been fulfilled a Crown grant is issued to the holder.

Under certain conditions a residential conditional purchase may be converted into a homestead farm, and a non-residential purchase into a residential purchase or a homestead farm.

Transfer may be made after the certificate has been issued, but purchases applied for after 31st January, 1909, may be transferred only with the consent of the Minister for Lands.

A conditional lease of not less than 40 acres may be obtained only by the holder of a conditional purchase, subject to the various conditions set out above in respect of conditional purchases. The term of lease is forty years, but may be extended to sixty years upon application during the last five years of the term with the right to convert an area of not less than 40 acres to additional conditional purchase at any time after confirmation. The rent is payable annually at rates appraised by the Land Board, subject to reappraisal at the end of each period of fifteen years. (Further particulars as to conditional leases are given on a later page.)

Number and Area of Conditional Purchases and Conditional Leases.

Transactions in respect of original and additional conditional purchases from 1862 to 30th June, 1929, were as follow:—

Year ended 30th June.	Completed Conditional Purchases—Deeds issued during year.		Uncompleted Conditional Purchases in existence.		Conditional Leases. Gazetted or Confirmed during year.	
	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.
1862–1924	155,189	20,637,146	72,888	18,199,432	33,220	17,581,448
1924	3,374	596,124	71,202	18,122,045	231	233,123
1925	3,325	590,221	69,470	18,156,194	166	179,241
1926	2,816	460,217	69,866	19,263,629	93	46,817
1927	2,887	449,117	69,046	19,635,068	68	47,267
1928	2,645	394,306	68,278	20,057,640	89	58,181
1929	3,710	315,358	66,170	20,619,758	79	52,606
Total (as at 30th June, 1929)	173,946	23,442,489	66,170	20,619,758	19,459*	12,048,999*

* Leases in existence.

The particulars of applications for conditional purchases shown above are exclusive of applications to convert the tenures into conditional purchases, whereas the figures relating to completed and uncompleted conditional purchases include large areas converted from other tenures. The total area alienated and in course of alienation by conditional purchase as at 30th June, 1929, was 44,062,247 acres, and, in addition, there were 12,048,999 acres of associated conditional leases which were almost wholly convertible into conditional purchases. The area of uncompleted conditional purchases shown above includes a number upon which payments have been completed, although deeds have not yet been issued.

The area of conditional purchases converted to other tenures has been deducted from the totals shown above.

The number of conditional purchase selections shown is several times greater than the total number of rural holdings in the State, and does not, of course, represent individual holdings. It represents the number of individual blocks, both original and additional, taken up as conditional purchases and it includes those which have been incorporated with other holdings after deeds have been issued.

Auction Sales and After-auction Purchases.

Crown lands are submitted for auction sale under two systems. Under the ordinary system the balance of purchase money is payable, without interest, within three months of the day of sale, while, under the deferred payment system, the balance is payable by instalments, with 5 per cent. interest, distributed over a period not exceeding ten years. In either case, not less than 10 per cent. of the purchase money must be deposited at the time of sale.

Auction sales were limited by law in 1884 to 200,000 acres in any one year, but the area sold by auction and after-auction purchases, although formerly extensive, has amounted to only 42,614 acres in the last twelve years. Town lands may be sold in blocks not exceeding half an acre, at an upset price of not less than £8 per acre; and suburban lands must not exceed 20 acres in one block, the minimum upset price being £2 10s. per acre. Country lands may be submitted in areas not exceeding 640 acres, the upset price being not less than 15s. per acre. The value of improvements on the land may be added to the upset price.

Town or suburban land or portions of country land of less than 40 acres each, which have been passed at auction, may be brought with the Minister's consent, at the upset price. A deposit of 25 per cent. of such upset price is payable at the time of application, the balance being payable on the terms fixed for the auction sale.

Alienation by this method is now very restricted. Only 1,422 acres were sold by auction during 1928-29 in 676 lots, realising £81,678. Three hundred and eighty-three acres were sold as after-auction purchases in 249 lots, realising £6,082.

Improvement Purchases.

Holder of miners' rights or of business licenses on a gold-field, being in authorised occupation by residence on land containing improvements, may purchase such land without competition. Improvements must include a residence or place of business, and be of the value of £8 per acre on town land, and of £2 10s. per acre on any other land. Alienation by this means has never been extensive. During 1928-29 the area sold was 15 acres in 12 lots for a total sum of £139.

Special Non-Competitive Sales.

These comprise land reclamations, rescissions of reservations, unnecessary roads, public land to which no way of access is available, or which is insufficient in area for conditional sale, etc., also residential leases, and the area of Newcastle pasturage reserves for which the purchase money has been paid in full. The amount realised by special sales in 1928-29 was £16,135 in respect of 2,668 acres of land.

The owner in fee-simple of land having frontage to the sea, or to any tidal water or lake, who desires to reclaim and purchase any adjoining land lying below high-water mark, may apply to the Minister for Lands to do

so, except in the case of Port Jackson, the control of which is vested in the Sydney Harbour Trust. Reclamations which might interrupt or interfere with navigation are not authorised.

Area Alienated by Crown Land Sales.

Particulars of areas disposed of under the three preceding headings, in quinquennial periods, since 1900, are as follow:—

Year ended 30th June.	Auction Sales.	After-auction Sales.	Improvement Purchases.	Special Sales.	Total.
	acres.	acres.	acres.	acres.	acres.
1900-04* ...	261,328	10,004	942	3,782	276,056
1905-09 ...	80,430	15,801	181	5,817	102,229
1910-14 ...	16,768	6,994	269	9,976	34,007
1915-19 ...	20,527	2,709	241	9,743	33,220
1920-24 ...	9,340	2,963	143	10,792	23,238
1925-29 ...	7,431	1,792	138	11,126	20,487
1927 ...	595	255	28	2,151	3,029
1928 ...	1,230	230	20	2,595	4,075
1929 ...	1,422	381	15	2,668	4,489

* Calendar years.

Exchange of Land between the Crown and Private Owners.

Before the granting of fixity of tenure in connection with pastoral leases, the lessees had made it a practice to secure portions of their runs by conditional purchases and purchases in fee-simple. The practice was disadvantageous to the public estate, because Crown lands were left in detached blocks severed by lessees' freehold properties; and the lessees realised that it would be convenient for them to gather their freeholds together in one or more consolidated blocks by surrender of the private lands in exchange for Crown lands elsewhere.

Under the provisions of the Crown Lands Consolidation Act, 1913, the Governor, with the consent of the owner, may exchange any Crown lands for any other lands of which a grant in fee-simple has been issued.

The Governor may accept, in exchange for Crown lands, lands in respect of which a balance of purchase money remains unpaid, if upon payment of such balance the right to a grant in fee-simple becomes absolute. In any such case a grant of Crown lands in exchange will not be issued until the balance of purchase money has been duly paid.

Under this head 23 applications, embracing 18,851 acres, were granted in 1928-29.

Settlement Purchase and Irrigation Farm Purchase.

Particulars of these methods of acquiring land are shown on later pages in relation to Closer Settlement and Irrigation Settlement.

ALIENABLE LEASES.

The principal kinds of leases which may be converted under specified conditions to freehold tenures wholly or in part are the conditional lease, Crown lease, settlement lease, improvement lease, homestead lease, homestead selection and homestead grant, annual lease, special lease, scrub lease, inferior lands lease, conditional purchase lease, irrigation farm lease, non-irrigable lease, prickly-pear lease, and homestead lease. Other leases of this class are suburban holding, residential lease, week-end lease, and leases of town lands.

Conditional Leases.

Certain particulars regarding these leases have been shown on a previous page in connection with conditional purchases. The tenure was introduced by the Act of 1884. A conditional lease may be obtained by any holder of a conditional purchase (other than non-residential), or a conditional purchase within a special area in the Eastern Division. Lands available for conditional purchase are also available for conditional lease, with the exception of lands in the Western Division, and of lands within a special area or a reserve. Applications must be accompanied by a provisional rent of 2d. per acre and a survey fee, except where otherwise provided. The lease was formerly for a period of forty years, but it was provided in 1924 that, upon application during the last five years of its currency, a lease might be extended for a period of twenty years.

The rent is determined by the Land Board, and is payable yearly in advance. Any conditional lease, with the exception of a small number of inconvertible conditional leases created by conversion from other tenures, may be converted at any time during its currency into a conditional purchase, and an Act passed in 1927 enabled conditional leases to be transferred and held separately from the original holding with which they were granted.

Applications for 162 leases were lodged during 1928-29, and 79 representing 52,606 acres, were confirmed.

Conditional leases, to the number of 828, embracing 488,778 acres, were converted into conditional purchases during 1928-29, and conditional leases containing an area of 14,970 acres, were created by conversion. Gazetted conditional leases in existence at 30th June, 1929, numbered 19,459, embracing 12,048,999 acres, at an annual rental of £195,960.

Crown Leases.

Crown leases were constituted under the Crown Lands Amendment Act, 1912, and lands are specially set apart by notification in the *Government Gazette* as available for Crown lease. Crown lands available for conditional purchase (unless otherwise specified in the *Gazette*) are also available for Crown lease. Land may be set apart for Crown lease to be acquired only as additional holdings.

The term of lease is forty-five years, and the annual rent $1\frac{1}{4}$ per cent. of the capital value, as determined every fifteen years. The rent payable for the first year may be remitted if, in addition to the improvements required as a condition of the lease, an equal sum be spent by the lessee in improving the land. Upon the expiration of a Crown lease the last holder thereof possesses tenant rights in all improvements other than Crown improvements. The lessee is required to reside on the land for five years, commencing within six months of the confirmation of the lease. Under the conditions attached to the lease when granted in 1912 the lessee was empowered during the last five years of the lease, unless debarred by notification setting the land apart, to apply to convert into a homestead farm so much of the land as would not exceed a home maintenance area. But by the Act of 1917 where a Crown lease is not covered by reservation of any kind, so much of it as, with other freehold or convertible leases held by the lessee, does not exceed a home maintenance area may be converted into a conditional purchase, with or without a conditional lease. Since the passing of this Act 1,110,821 acres of Crown lease have been converted into conditional purchase and conditional purchase lease. By a further Act passed in 1930 Crown leases were made convertible in their entirety without restriction. The lease may be protected against sale for debt in certain circumstances. Any person qualified to apply for a homestead farm may apply for a Crown lease.

Operations under this class of lease have been as follow:—

Year ended 30th June.	Applications Confirmed.		Leases current at 30th June.		
	No.	Area.	No.	Area.	Rent.
		acres.		acres.	£
1912-1924	5,129	6,172,823	3,731	4,764,214	43,464
1925	274	367,031	3,819	4,874,737	45,085
1926	257	369,256	3,933	5,171,229	44,440
1927	192	246,187	3,923	5,260,371	45,384
1928	237	345,610	3,991	5,387,358	46,113
1929	247	479,987	3,944	5,460,250	46,061

The figures shown above include a number of Crown leases made available specially for returned soldiers. Particulars of these are shown on page 694.

This tenure was extensively applied immediately from its inception, and it practically superseded the settlement lease under which operations were extensive until 1912. Most of the Crown lands made available each year are set apart under this tenure and that of the homestead farm, also introduced in 1912. The total area of Crown leases confirmed during the fourteen years the tenure has been in existence was 7,930,894 acres, which has been reduced by forfeitures, conversions, &c., so that the area remaining under Crown lease at 30th June, 1929, was 5,460,250 acres.

Settlement Leases.

This tenure was created in 1865. Until 1912 it was used extensively in making land available for settlement, but since the introduction of the Crown lease in that year fresh operations under it have been inconsiderable. Under its conditions farms gazetted as available for settlement lease can be obtained on application accompanied by a deposit of six months' rent, and one-tenth of survey fee. The duration of the lease is forty years, but an Act of 1930 provided that settlement leases not substantially in excess of a home maintenance area might be extended to sixty years. The leaseholder is required to reside on the lease for the first five years of its currency. Rent is payable at the rate specified upon gazettal, subject to the lessee's right to apply for reappraisal within five years and to re-appraisal at the end of each fifteen years of the currency of the lease.

From its inception very considerable areas of land were taken up under this lease, and by 30th June, 1913, the total area of settlement leases confirmed to applicants was 8,793,663 acres. An amendment of the Crown Lands Act gave holders of settlement leases the right to convert such part of their leases as, with freehold or convertible lands already held, does not exceed a home maintenance area into a conditional purchase with an associated conditional lease, but where the total holding of freehold land so created would exceed a home maintenance area the excess is granted as conditional lease without rights of conversion.

Between 1909 and 30th June, 1929, a total area of 5,444,434 acres of settlement leases were converted under these conditions into other tenures, and 50,890 acres, chiefly of special leases, had been converted into settlement leases. Since 1913 only 100,421 acres of new settlement leases have been confirmed, while large areas have reverted to the Crown by forfeiture, &c. At 30th June, 1929, there remained under this tenure, 1,123 leases, comprising 2,967,596 acres, at an annual rental of £43,399.

During 1928-29 there were three applications for additional leases, and one lease, with an area of 936 acres was confirmed; there were no applications for original settlement leases.

Improvement Leases.

This tenure was introduced in 1895 and, by the end of 1903, an area of 9,716,006 acres of improvement leases had been let, although the area actually current was much smaller. After that year the areas taken up annually showed a considerable falling off and, up to 30th June, 1929, the total area of improvement leases which had been let was 11,568,639 acres, of which only 1,037,713 acres remained current. The maximum area of improvement leases current at any time was 6,884,330 acres in 1910, the subsequent decrease having been brought about mainly by the withdrawal of leases for settlement in terms of individual leases and a number of other causes, such as forfeiture, expiry, resumption, and the transfer of improvement leases wholly within State forests to the control of the Forestry Commission and their conversion into forestry leases.

An improvement lease may consist of any land in the Eastern or Central Divisions considered unsuitable for closer settlement until improved. It may be obtained only by auction or tender, but prior to 1920 certain leases were granted at fixed rentals under improvement conditions. The rent is payable annually, and the lease is for a period of twenty-eight years, with an area not exceeding 20,480 acres. Upon the expiration of the lease the last holder is deemed to have tenant-right in improvements. During the last year of the lease the lessee may apply for a homestead grant of an area not in excess of a home maintenance area, including the area on which his dwelling-house is erected. This provision has become operative since 1921, and a total area of 696,969 acres has been converted in this way. The Advisory Board, constituted under the Closer Settlement Act, 1907, may inspect any land comprised in an improvement lease, and if it finds such land suitable for closer settlement the Minister may resume the lease, the lessee being compensated. To 30th June, 1929, a total area of 342,821 acres had been withdrawn in this way, £126,794 being paid as compensation to lessees.

During 1928-29 three improvement leases with a total area of 15,000 acres were granted at an annual rental of £79. Thirteen improvement leases, with a total area of 44,566 acres, were converted into homestead selections. At 30th June, 1929, there remained current 265 improvement leases and leases under improvement conditions, with an area of 1,037,713 acres, and rental £8,058.

Homestead Farms.

This tenure was created in 1912. The title of a homestead farm is a lease in perpetuity. Annual rent is charged at the rate of 2½ per cent. of the capital value, but for the first five years the holder, in lieu of payment of rent, may expend an equal amount on improvements of a permanent character, which (except boundary fencing) are in addition to those which are required otherwise by the conditions of the lease. The capital value of the holding is subject to reappraisal after the first twenty-five years and subsequently at intervals of twenty years.

Crown lands available for conditional purchase (unless otherwise notified in the *Gazette*) are available also for homestead farms. Land may be set apart for additional homestead farms, but is available only to applicants whose total holding, if successful, would not substantially exceed a home-maintenance area. Any Crown lands may be set apart for disposal as homestead farms before survey. There is no definite limit placed on the area of a homestead farm, but it is generally notified as available in the home-maintenance areas.

A condition of five years' residence is attached to every homestead farm, but in special cases residence in a town or village, or anywhere within reasonable working distance, may be allowed. Residence may be permitted on a holding of a member of the same family, or on another of the selector's holdings within reasonable working distance. Suspensions or remissions may be granted for such periods as determined by the Land Board. In certain cases a wife may carry out residence on her husband's holding, or, conversely, a husband may carry out residence on his wife's holding.

A perpetual lease grant is issued after the expiration of five years from confirmation of the application, if the holder has complied with all the conditions.

A perpetual lease grant is issued after the expiration of five years from confirmation of the application, if the holder has complied with all the conditions.

Particulars relating to applications for homestead farms and conversions from other tenures during the last five years are shown below:—

Year ended 30th June.	Applications Confirmed.		Created by Conversion from other tenures.		Reversal of forfeiture and increased area.		Less—Forfeited, decrease in area, and conversions into other tenures.		Homestead Farms in existence at end of year.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.		acres.
1924	269	371,816	4	2,862	9	8,449	105	86,891	3,287	3,248,663
1925	352	524,632	12	31,729	9	21,506	118	114,161	3,542	3,712,369
1926	237	307,259	10	25,209	16	19,560	122	98,453	3,683	3,965,944
1927	121	140,412	11	32,357	2	3,521	112	134,680	3,705	4,007,554
1928	147	190,262	15	41,617	35	47,251	147	183,668	3,762	4,103,016
1929	120	130,364	3	10,078	4	1,792	151	252,755	3,760	3,995,621

Since 1916-17 homestead farms have been made available specially for returned soldiers. These are included in the table.

The total area of homestead farms confirmed to 30th June, 1929, was 5,068,679 acres and after adjustments of area by reason of conversion, forfeiture, etc., there remained in existence 3,995,621 acres under this tenure.

The holder of a conditional purchase, or conditional purchase and conditional lease, or homestead selection, or homestead grant, or conditional purchase lease, under certain conditions, may convert such holding into a homestead farm. The area of homestead farms so created to 30th June, 1929, was 210,311 acres. Under certain conditions a homestead farm may be converted into a conditional purchase lease or into a conditional purchase, with or without a conditional lease, or since February, 1927, into a Crown lease. An Act of 1930 made homestead farms convertible in their entirety without restriction. 619,173 acres of homestead farms had been converted into other tenures prior to 30th June, 1929. A homestead farm, which is a conversion of a settlement purchase under provision now repealed, may be reconverted into a settlement purchase. Two homestead farms of 449 acres and 722 acres respectively have been so converted.

Homestead Selections and Homestead Grants.

The appropriation of areas for homestead selection was a prominent feature of the Act of 1895, the land chosen for subdivision being generally agricultural land, and the maximum area of holdings limited to 1,280 acres. The tenure is lease in perpetuity with rent at the rate of 1½ per cent. per annum for the first five years or until the issue of the homestead grant, when it is raised to 2½ per cent. or to 3½ per cent. of the appraised value if residence is performed by deputy. Certain residential and improvement conditions were imposed, and on compliance with these for a term of five years a homestead grant is issued.

Since 1912 practically no lands have been made available for original homestead selections, such tenure having been replaced by that of homestead farm. Applications dealt with after 1912, are either in connection with areas previously set apart for homestead selections, or as additional areas, principally the latter. The following statement shows the applications and confirmations in regard to homestead selections and homestead grants issued up to 30th June, 1929.

Year ended 30th June.	Homestead Selections. Confirmed.		Homestead Grants Issued.		Homestead Selections and Grants in existence.	
	No.	acres.	No.	acres.	No.	acres.
1895 to 1924	8,087	2,848,736	6,030	2,258,961	2,752	951,599
1925	5	2,922	29	17,854	2,152	785,250
1926	8	5,223	37	26,554	2,149	939,519
1927	10	14,523	33	35,324	2,131	1,009,674
1928	10	23,272	27	30,798	2,156	1,179,511
1929	26	52,721	10	13,400	2,061	1,198,737

Operations under this tenure were at first very extensive, but they gradually diminished, and in 1911-12, the year before the homestead farm was introduced, only 94,641 acres of homestead selections were confirmed. The Crown Lands Amendment Act of 1908 authorised the conversion of homestead selections and grants into conditional purchases and conditional leases. Extensive advantage has been taken of this provision, and to 30th June, 1929, an area of 2,126,298 acres of homestead selections and grants had been so converted. This accounts for the difference between the area of homestead selections confirmed (2,947,397) and the area remaining in existence (1,198,737) the difference having been reduced latterly by the extensive conversions of improvement leases into homestead selections. Under the Crown Lands (Amendment) Act of 1912, a homestead selection or grant may be converted into a homestead farm, but there have been only twenty-eight cases of conversion of this kind, covering 120,036 acres. An Act of 1930 made homestead selections convertible in their entirety without restriction.

Leases of Scrub and Inferior Lands.

These tenures were introduced in 1889 in order to provide for the effective occupation and improvement of lands not suited for ordinary pastoral occupation.

The conditions under which leases of scrub and inferior lands may be obtained have been fully described in previous issues of this Year Book.

The area of inferior lands leases have never been extensive, and the area under scrub leases reached its maximum of 2,273,123 acres in 1912, then diminished steadily.

At 30th June, 1929, there were in existence 118 scrub leases, with an area of 464,366 acres, and rental of £2,451, and 18 inferior lands leases, embracing 69,192 acres, at a rental of £241.

Annual Leases.

Unoccupied lands, not reserved from lease, may be obtained for pastoral purposes as annual leases on application, or they may be offered by auction or tender. No conditions of residence or improvement are attached to annual leases, which do not convey security of tenure, the land being alienable by conditional purchase, auction sale, etc. The area in any one lease is restricted to 1,920 acres. In certain circumstances an annual lease may be converted into a lease under improvement conditions for a term not exceeding ten years.

The area under annual lease fluctuates from year to year, but is diminishing steadily. It amounted to 8,687,837 acres in 1903 and 2,953,296 in 1920. The number of annual leases current at 30th June, 1929, was 3,280, embracing 1,247,423 acres, with an annual rent of £10,486, inclusive of 39 annual leases, comprising 34,950 acres in the Western Division.

Special Leases.

Special leases not exceeding an area of 320 acres are issued to meet cases where land is required for some industrial or business purpose. A special lease may be obtained for a period not exceeding twenty-eight years on conditions determined by the Minister.

The Crown Lands Act, passed in 1908, provides for the conversion of a special lease by a qualified leaseholder, with the consent of the Minister, into a conditional purchase lease, an original or additional conditional purchase, an original or additional homestead selection, an original or additional settlement lease, a conditional lease, or homestead farm. Under this provision 1,104,127 acres of special leases have been converted into various new tenures.

The number of special leases granted during 1928-29 was 890, with a total area of 98,316 acres, and 409 leases, representing 81,007 acres, were converted into other tenures. After allowance has been made for leases which had terminated, were forfeited, surrendered, etc., and those which expired by effluxion of time, 7,449 leases, with an area of 753,550 acres and rental of £46,889, were current at 30th June, 1929.

Conditional Purchase Leases.

This form of tenure was created in 1905; but, as in the case of homestead selections and settlement leases, it is obsolete for the purpose of selection, as lands are not now made available under it. The area held under conditional purchase lease reached a maximum of 677,961 acres in 1911, and since then it has decreased steadily.

The term of the lease was originally forty years, but in 1924 it was increased to fifty years with rent at $2\frac{1}{2}$ per cent. per annum of the capital value, which is to be re-appraised at the end of the first twenty-five years. No fixed limit was placed on areas made available, but conditions as to residence, cultivation, etc., were prescribed. Conversion to the tenures of conditional purchase and homestead farms is permitted, the total area so converted being 505,338 acres.

A special conditional purchase lease may be granted without obligation of residence in respect of areas not exceeding 320 acres on condition that improvements to the value of 10s. or more per acre, as determined by the Minister, are effected within three years of application.

The annual operations under this tenure are now very small. The leases holding good at 30th June, 1929, numbered 254, with an area of 182,754 acres; the annual rent amounting to £5,399.

Prickly Pear Leases.

Under the Prickly Pear Destruction Act, 1901, certain common or Crown lands infested with prickly pear may be offered for lease by auction or tender, and may be let for a term not exceeding twenty-one years, subject to prescribed conditions as to improvements, rent, etc. At 30th June, 1929, the number of prickly pear leases was 41, and the area so leased was 34,400 acres, at a total annual rental of £219. Under certain conditions a prickly pear lease may be converted to a homestead selection, and four leases of 1,655 acres have been so converted. In 1930 Acts were passed which made these leases convertible into homestead farm, Crown lease or conditional purchase and conditional lease and the Commissioner was given power to extend leases and reduce rentals and purchase prices as compensation for the clearing of prickly pear lands.

Homestead Leases.

The last leases under this tenure in the Eastern and Central Land Divisions terminated during 1923-24.

Suburban Holdings.

The tenure of suburban holding was introduced in 1912. It is a lease in perpetuity with fixed conditions as to residence and perpetual payment of rent. Under certain conditions the leaseholder may be permitted to purchase his holding. Any suburban Crown lands, or Crown lands within population boundaries, or within the Newcastle pasturage reserve, or any other Crown land, may be set apart for disposal by way of suburban holding.

The area of a suburban holding is determined by the Minister for Lands. The rent—minimum, 5s. per annum—is calculated at the rate of 2½ per cent. of the capital value, to be appraised for each period of twenty years. Males under 16 years and females under 18 years are disqualified from applying. A married woman may apply in certain cases, provided her husband has not acquired a suburban holding. After the expiration of five years from date of confirmation, and subject to fulfilment of all conditions, a perpetual lease grant is issued. The right to purchase suburban holdings was conferred in 1917.

No rent is chargeable on holdings in course of purchase, the principal with interest at the rate of 2½ per cent. per annum on the balance being paid by annual instalments extending over a period of ten years.

The number of confirmations and purchases of suburban holdings since the introduction of the tenure were as under:—

Year ended 30th June.	Confirmations.		Suburban Holdings in existence at the end of year.*			Suburban Holdings— Purchases approved to the end of the year.		
	No.	Area.	No.	Area.	Annual Rent.	No.	Area.	Price.
		acres.		acres.	£		acres.	£
1912-1924	3,743	77,490	2,373	56,376	5,766	559	5,908	49,514
1925 ...	47	641	2,370	53,994	5,734	662	10,739	57,258
1926 ...	33	419	2,191	52,998	5,466	740	11,069	66,157
1927 ...	81	1,547	2,252	54,865	5,387	792	11,933	71,042
1928 ...	95	1,281	2,260	54,253	5,045	852	13,227	76,292
1929 ...	53	515	2,272	53,422	5,610	891	14,409	82,923

* Exclusive of purchases approved.

To 30th June, 1929, deeds of purchase had been issued in respect of suburban holdings, embracing 4,744 acres; these are excluded from the above table.

Residential Leases.

The holder of a "miner's right" within a gold or mineral field may obtain a residential lease. A provisional rent of 1s. per acre is charged, the maximum area allowed is 20 acres, and the longest term of the lease twenty-eight years; the annual rent is appraised by the Land Board. The principal conditions of the lease are residence during its currency, and the erection within twelve months of necessary buildings and fences. Tenant-right in improvements is conferred upon the lessee. The holder of any residential lease may, after five years, acquire the land by improvement purchase with the consent of the Minister as described on a previous page.

There were 632 leases, embracing 8,752 acres at a rental of £1,204, current at 30th June, 1929.

Week-end Leases.

This tenure, created by the Crown Lands Amendment Act, 1916, is a lease in perpetuity of an area not exceeding 60 acres, subject to payment of rent at the rate of $2\frac{1}{2}$ per cent. of the capital value, to the effecting of substantial improvements worth £1 per acre within five years from confirmation, and to the performance of such special conditions as may be notified. Residence is not necessary. The minimum rent is £1 per holding. Any adult (except a married woman not judicially separated from her husband) may apply, but persons who already hold land within area defined in a notification setting apart the land for week-end leases are generally disqualified.

Week-end leases, on approval by the Minister, may be purchased, and payment must be made within three months from date of demand, or within such further period as the Minister may allow.

Transfers may be made at any time with the Minister's consent, but must be to a qualified person, except in cases of devolution under a will or intestacy. The consideration for a transfer must not exceed the capital value of the improvements on the land.

During the year ended 30th June, 1929, confirmation was made in five cases with an area of 44 acres at an annual rental of £10. At 30th June, 1929, the leases current numbered 112, of an area of 232 acres, and annual rental £117. In addition, 63 leases of 438 acres had been made freehold, and approval to purchase had been granted in the case of 6 leases of 25 acres.

Leases of Town Lands.

Crown lands within the boundaries of any town may be leased by public auction or by tender. The lease is perpetual, and the area included must not exceed half an acre. The amount bid at auction or offered by tender (not being less than the upset value) is the capital value on which the annual rent at the rate of $2\frac{1}{2}$ per cent. is based for the first period of twenty years. The capital value for each subsequent twenty years' period is determined by the Land Board.

The lease may contain such covenants and provisions as may be gazetted prior to sale or tender. Residence is not necessary. No person is allowed to hold more than one lease, unless with the permission of the Minister on recommendation by the Land Board. The holder of a town lease may be allowed to purchase it.

In the year 1928-29 no after-auction tenders were accepted. Up to 30th June, 1929, deeds of purchase had been issued for 73 lots embracing 28 acres and approval to purchase granted in 20 cases for an area of 4 acres. On 30th June, 1929, there were 311 leases, containing 114 acres, the annual rental being £279.

INALIENABLE LEASES.

The term "inalienable leases" is here used to signify that the statutory conditions attached to the leases so classified do not permit the leaseholder to purchase any part of his lease nor to convert into another leasehold tenure involving the right of purchase.

On the foundation of the Colony all lands vested in the Crown, and for many years permits to occupy unsold Crown lands were issued on various conditions.

The principal inalienable tenures now in existence are described below.

18th Section and Pastoral Leases.

Under the Crown Lands Amendment Act of 1903, the registered holder of any pastoral lease, preferential occupation license, or occupation license, could apply for a lease, for not more than twenty-eight years, of an area not exceeding one-third of the total area of the land comprised within the lease or license, subject to such rent, conditions or improvements, and withdrawal for settlement as may have been determined. These are known as 18th Section Leases, having been granted under the Land Act of 1903, which has been repealed. The area of land held under this tenure has decreased rapidly since 1914, when the area so held exceeded a million acres.

At 30th June, 1929, these leases, also known as "Leases to Outgoing Pastoral Lessees," numbered 53, with an area of 173,780 acres, and rental of £1,742. There were no pastoral leases in existence on 30th June, 1929, in the Western Division which had not been brought under the provisions of the Western Lands Act. Upon the recommendation of the Closer Settlement Advisory Board the Minister may resume for closer settlement any 18th Section lease; and to 30th June, 1929, an area of 14,424 acres had been so resumed and £3,274 paid as compensation to lessees.

Forestry Leases and Occupation Permits.

Unoccupied Crown Lands and leases situated entirely within dedicated forests are controlled exclusively by the Forestry Commission, which has power to lease or otherwise permit their use for pastoral or other approved purposes.

Forestry leases limited to twenty years have been granted for grazing purposes, and occupation permits usually on an annual tenancy, but sometimes for a period of fourteen years, have been granted for grazing, bee-farming, and forest saw-mills. For grazing purposes the rent is usually fixed in relation to the grazing capacity of the land.

The area of forestry leases and occupation permits wholly within State forests, at 30th June, 1929, was 1,750,361 acres under the Forestry Acts, besides 74,056 acres under the Crown Lands Act administered by the Forestry Department. In addition, an area of 89,014 acres, consisting of portions of other leases not wholly within State forests were administered by the Department of Lands.

Snow Leases.

Vacant Crown lands on the Southern Highlands, which for a portion of each year are usually covered with snow, and are thereby unfit for continuous use or occupation, may be leased by auction or tender as snow leases. Not more than one snow lease may be held by the same person. The maximum area of any snow lease is 10,240 acres. The term of the lease is seven years, but may be extended for three years.

At 30th June, 1929, there were 29 leases current, embracing 177,746 acres; and rent, £2,129. This tenure was introduced in 1889, and the area of snow leases reached a maximum in 1927.

Mineral and Auriferous Leases.

Under the Mining Act, the Minister for Mines is empowered to grant certain rights for the operations of mines on any lands within the State. These are known as mineral and auriferous leases and generally they take precedence over other forms of tenure. The area so held has steadily increased since 1914, when it was 199,060 acres. At 30th June, 1929, there were 273,531 acres held as mineral and auriferous leases, exclusive of leases to mine on private lands. The area leased in this way is not included in the area covered by other land tenures. Authorities to mine under roads and reserves covered an area of 860 acres.

Church and School Lands Leases.

The history of Church and School lands leases, showing the present status of leaseholders, was published on page 859 of the Year Book for 1921.

The total area of Church and School lands held under lease at 30th June, 1929, in the Eastern Division, was 11 acres, at a rental of £317 per annum.

Occupation Licenses.

Occupation licenses may be of two kinds (a) preferential occupation licenses, consisting of the area within an expired pastoral lease, and (b) ordinary occupation licenses, which relate to the parts of the holdings formerly known as resumed areas. They may be acquired by auction or tender. Occupation licenses extend from January to December, being renewable annually at a rent determined by the Land Board.

An occupation license entitles the holder to occupy Crown lands so granted for grazing purposes, but it does not exempt such lands from sale or lease of any other kind. The licensee, however, is granted tenant rights in any improvements made to his holding with the written consent of the Crown.

The area under occupation license (Crown Lands Act) was represented at 30th June, 1929, by 424 ordinary licenses for 1,937,154 acres, rental £5,215; and 211 preferential licenses, representing 469,132 acres, and rent £5,600. The area occupied in this way was formerly very extensive, being nearly 10,000,000 acres in 1904.

Permissive Occupancy.

Permissive occupancy is a form of tenancy at will from the Crown, at a fixed rental for a short period, terminable at any time by a written demand for possession from the Secretary for Lands or by written notice from the tenant. The occupant has tenant rights in improvements effected by him.

The number of permissive occupancies in existence at 30th June, 1929, was 7,711 comprising 3,873,344 acres, with a rental of £22,272. The area held under this tenure is increasing steadily.

CONVERSION OF TENURES.

In describing the various methods of acquisition and occupation, details have been given of provisions of the Crown Lands Act which confer on certain holders of Crown lands the right of conversion into more desirable tenures. These may be summarised briefly thus:—

A conditional lease or a conditional purchase lease may be converted, at the option of the holder, into a conditional purchase. A homestead farm, a homestead selection, a settlement lease, or a Crown lease may be converted into a conditional purchase with (if desired) an associated conditional lease, subject to the proviso as to a home maintenance area described below. A homestead farm or homestead selection may, in certain circumstances, be converted into a conditional purchase lease and a conditional purchase lease may be converted into a homestead farm. During the last five years of its currency a Crown lease may, with the approval of the Minister, be converted into a homestead farm, while up to 1,280 acres of a settlement lease may (after five years) be converted into a homestead grant. A special lease, unless debarred, may be converted, at the discretion of the Minister, into a conditional purchase lease, conditional purchase, conditional lease, homestead selection, settlement lease, or homestead farm. Under various conditions an improvement lease, scrub lease or prickly pear lease not otherwise reserved may be converted into a homestead selection not exceeding in extent a home maintenance area. Since February, 1927, it has been possible in certain circumstances to convert a homestead farm into a Crown lease.

In the case of a homestead farm, homestead selection, Crown lease or settlement lease the area that may be converted into freehold, together with the area held by the applicant under any other tenure (other than a lease having less than five years to run without the right to purchase the freehold), must not exceed a home maintenance area as determined by the Local Land Board. The Crown Lands Amendment Act of 1930 authorised the conversion of homestead selections, homestead farms and Crown leases in their entirety without restriction and made non-convertible conditional leases convertible in certain circumstances. Prickly pear leases were made convertible into homestead farms, Crown leases or conditional purchases and conditional leases.

The following statement shows the number and area of holdings in respect of which conversions were confirmed during the year 1928-29:—

Tenure of Holding Converted.	New Tenure Confirmed.													
	Conditional Purchase.		Con- ditional Purchase and Associated Con- ditional Lease.		Con- ditional and Con- ditional Purchase Leases.		Home- stead Selection.		Crown Lease.		Home- stead Farm.		Total Confirma- tions.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.		acres.		acres.		acres.
Conditional Leases ...	82	488,778	...	...	...	...	...	...	...	...	...	...	82	488,778
Conditional Purchase Leases ...	10	8,323	2	1,031	...	...	...	...	...	...	...	...	11	9,367
Homestead Selections or Grants ...	8	46,577	14	28,415	...	...	...	...	...	...	2	8,344	97	83,336
Settlement Leases ...	31	52,918	52	182,515	...	...	...	...	...	...	...	...	83	235,433
Prickly Pear Leases...	...	...	...	...	...	...	1	582	...	...	...	...	1	582
Special Leases ...	377	63,855	...	...	29	14,570	2	848	...	...	1	1,734	409	81,007
Scrub Leases ...	...	...	...	...	...	...	5	17,278	...	...	...	...	5	17,278
Improvement Leases	...	...	...	...	...	...	13	44,566	...	...	...	...	13	44,566
Crown Leases ...	111	75,385	71	203,385	1	400	...	...	...	...	...	...	183	279,173
Homestead Farms ...	84	97,622	60	149,753	...	...	...	...	...	...	...	...	144	247,375
Total ...	1,522	833,463	199	565,110	30	14,970	21	63,274	...	...	3	10,078	1,775	1,486,895

Particulars of the number and area of new tenures obtained by conversion during each of the past ten years are shown below:—

New Tenure Confirmed.

Year ended 30th June.	Conditional Purchase.*		Conditional Purchase and Associated Conditional Lease.†		Conditional and Conditional Purchase Lease.		Home-stead Selection.		Settlement Lease.		Home-stead Farm.		Total Confirmations.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.		acres.		acres.		acres.
1919	1,952	711,042	64	157,021	32	20,213	1	6,100	1	283	3	1,602	2,053	896,261
1920	1,659	511,315	96	217,835	30	6,069	7	3,178	3	380	5	3,211	1,800	712,018
1921	1,598	501,861	78	174,756	34	11,074	23	36,986	3	2,894	1	151	1,737	727,722
1922	1,302	455,018	56	122,923	30	8,297	29	39,371	23	18,238	8	9,505	1,449†	†653,861
1923	1,201	393,649	43	115,421	24	8,339	27	46,973	15	4,298	12	10,690	1,323†	†580,092
1924	1,260	438,722	63	169,333	38	10,787	22	55,783	4	5,928	4	2,862	1,366	663,465
1925	1,332	514,312	86	278,421	33	12,550	26	40,632	5	1,211	12	31,729	1,499	878,855
1926	1,359	562,934	70	193,852	30	13,419	60	213,803	4	1,171	10	23,209	1,533	1,016,888
1927	1,526	734,045	95	209,682	26	12,798	41	131,319	2	253	11	32,357	1,701	1,129,447
1928	1,432	679,685	164	372,857	34	26,237	57	214,444	5‡	18,014	15	41,617	1,707	1,352,854
1929	1,522	833,463	199	565,110	30	14,970	21	63,274	...	...	3	10,078	1,775	1,480,895

* Including non-residential conditional purchases. † Including 1 homestead farm converted to a settlement purchase of 449 acres in 1922, and 1 of 722 acres in 1923. ‡ Crown Lease.

The above table includes particulars of leases converted under the original conditions on which they were granted as well as of leases granted under the special conversion privileges allowed by the Acts of 1909 and 1916. For instance, the right to convert conditional leases and conditional purchase leases into conditional purchases was granted when they were first introduced, as also was the right to convert scrub and improvement leases under certain conditions into homestead selections. On the other hand, the Crown Lands Amendment Act of 1908 conferred on holders the right to convert homestead selections, settlement leases and non-residential conditional purchases into conditional purchases, while special leases were made convertible into any of a number of tenures with the consent of the Minister.

In 1916 Crown leases and homestead farms which had been created as leases in 1912 were made convertible into conditional purchases.

WESTERN LAND DIVISION.

The lands of the Western Division, comprising 80,318,708 acres, or two-fifths of the area of the State, are for the most part sparsely settled, and occupation is somewhat precarious on account of the low and uncertain rainfall.

The administration of these lands is regulated by the Western Lands Act, 1901, and is controlled by three Commissioners, constituting the Western Land Board of New South Wales, who, sitting in open Court, exercise all the powers conferred upon Local Land Boards by the Crown Lands Acts.

Subject to existing rights and extension of tenure granted under certain conditions, all forms of alienation (other than by auction) and lease prescribed by the Crown Lands Acts, ceased to operate within the Western Lands Division from 1st January, 1902.

The registered holder of a homestead selection or grant, pastoral, homestead, settlement, residential, special, artesian well, improvement, scrub, or inferior lands lease or occupation license of land in the Western Division, may apply to bring his lease or license under the provisions of the Western Lands Acts. In cases where application has not been made, such lease or license is treated as if the Acts had not been passed.

Crown lands within this division are not available for lease until so notified in the *Gazette*, but leases for special purposes may be granted upon certain conditions, and holders of areas which are considered too small to maintain a home or to make a livelihood may obtain an additional area under certain conditions as a lease. Lands are gazetted as open for lease at a stated rental under specified conditions with respect to residence, transfer, mortgage, and sub-letting.

All leases issued or brought under the provisions of the Western Lands Acts except special leases, will expire on 30th June, 1943, subject to the Western Lands Amendment Act, 1930, and later amendments. Conditional leases, which number 74 and embrace 102,482 acres, however, may be converted into conditional purchase before expiry. In cases where a withdrawal is made for the purpose of sale by auction or to provide small holdings, the lease of the remainder may, as compensation, be extended for a term not exceeding six years.

The rent on all leases brought under the provisions of the Act is determined by the Commissioners for the unexpired portion. The minimum rent or license fee is 2s. 6d. per square mile or part thereof; the maximum is 7d. per sheep on the carrying capacity determined by the Commissioners.

Holdings under the Western Lands Acts as at 30th June, 1929, were classified as follow:—

Class of Holding.	Leases issued.	Area.	Annual Rental.
New Leases issued under Western Lands Act:—	No.	acres.	£
Special Leases	370	764,594	2,188
Section 32, Western Lands Act Leases (additional)	292	2,804,990	2,875
Part VII,	754	21,415,676	20,267
Part VII, new Leases being issued	57	74,542	1,694
Preferential Occupation Licenses	14	78,803	69
Leases under Crown Lands Act brought under Western Lands Act:—			
Pastoral Leases	270	30,024,572	48,740
Subdivisional Leases	137	7,535,472	11,544
Homestead Leases	1,111	10,301,833	27,816
Improvement Leases	112	1,898,784	1,214
Scrub Leases... ..	3	17,431	31
Inferior Lands Leases	2	159,439	34
Settlement Leases	8	40,050	150
Artesian Well Leases	31	311,680	500
Special Leases (Conversion)	31	8,888	169
Occupation Licenses	63	545,512	313
Homestead Selections and Homestead Grants ...	34	24,765	156
Conditional Leases	75	102,482	502
Permissive occupancies	56	354,274	326
Total... ..	3,420	76,464,187	118,588

In addition there were 2,031,282 acres of land alienated, or in course of alienation; 755,877 acres of unoccupied land of low grade; 888,331 acres of unalienated town lands, beds of rivers, commonages, etc., 179,031 acres of land still under the Crown Lands Act, yielding annual rentals amounting to £1,092.

PRICKLY PEAR LANDS.

Public attention was first called in Parliament to the growth of prickly pear as a pest in 1882, and in 1885 it was stated that an area of 5,000 acres had become infested in the Upper Hunter district. In 1886 a Prickly Pear Destruction Act was passed, and with some modification in 1901 this remained the law relating to the pest until 1924. The law, however, was not put into operation extensively, and the spread of the pest continued practically unchecked. In 1911 it was estimated that 2,000,000 acres of land were infested with pear, and at the end of 1924 the area so infested was stated to be 7,600,000 acres, the greater part of which, however, was lightly infested.

At this juncture the law was completely revised and the Prickly Pear Act, 1924, was designed to provide means for preventing the further spread of the pest and for eradicating it where possible. This Act (as amended in 1925) related to all lands infested with prickly pear and provided for the appointment of a Commissioner to administer its provisions. It was made an obligation for owners and occupiers of all lands within the State to keep uninfested land entirely free from prickly pear, and all owners and occupiers of freehold or leased lands already infested are required to make an annual return to the Commissioner showing the area of their holdings upon which prickly pear is growing, together with information as to the steps being taken to deal with it.

The Commissioner has delimited 67 prickly pear zones and classified the land within such zones into four grades, according to whether it is free from prickly pear, lightly infested, heavily infested or very heavily infested. The Commissioner has power to require landholders to clear their lands and to afford them assistance by way of loans or by performing the work at actual cost. In addition, the Commissioner purchases poisons and appliances in bulk so that they may be supplied to landholders at the cheapest possible rates. The Commission estimated that by June, 1930, 1,000,000 acres of infested land had received its first treatment, and the opinion was expressed that not only had the spread of prickly pear been checked but that the area infested had been reduced. By agreement with the holder, the terms and conditions of leases of any infested lands leased from the Crown may be varied in any manner approved by the Governor. Crown lands already infested may be leased under the Prickly Pear Act, under special conditions. The Commission has taken action to clear Crown lands of the pest, and to this end co-operates with local bodies.

Where any private land is classified as very heavily infested, *i.e.*, as land of less value than the cost of freeing it from pear, the owner may divest himself thereof by surrendering it to the Crown, and in such case he is required to fence off the surrendered portion and to maintain free of pear a strip of land 10 feet wide within and around such surrendered portion. Crown lands classified as very heavily infested may be granted by the Minister to any person who has freed them from pear.

The Act establishes a Prickly Pear Destruction Fund by providing for five years from 1st January, 1925, an annual appropriation of £30,000 from Consolidated Revenue. This fund is under control of the Minister, to be applied by him for the administration of the Act. The Minister is empowered to make grants from this fund for the purpose of assisting councils, pastures protection boards, and the trustees of cemeteries, commons, or reserves to meet their obligations under the Act.

During the year ended 30th June, 1929, the total expenditure was £69,855, including £29,345 for poisons. At the end of the year there was a credit balance of £38,656.

CLOSER SETTLEMENT.

The circumstances leading to the adoption of what is known as the "Closer Settlement Policy" are described on page 680 of the Year Book for 1928-29. Further reference to the subject may be found in previous Year Books.

The Closer Settlement Acts provide that the Minister for Lands, with the sanction of the Governor and the approval of Parliament, may purchase private estates at a price approved by Parliament. But any alienated estate whose unimproved value exceeds £20,000 may be compulsorily resumed for closer settlement.

Land comprised in any improvement or scrub lease, or section 18 lease, may be resumed or purchased under agreement for closer settlement upon the recommendation of the Closer Settlement Advisory Board. To 30th June, 1929, an area of 564,695 acres comprised in 64 long-term leases had been re-acquired in this way at a cost of £200,799, and had been disposed of in 605 farms consisting of homestead farms and Crown leases under the Crown Lands Consolidation Act.

Within six months after the passing of an Act sanctioning the construction of a line of railway, the Governor may notify a list of estates within 15 miles of the railway line; within six months of this notification the Governor may notify his intention to consider the advisableness of acquiring for purposes of closer settlement land so notified, the property of one owner, and exceeding £10,000 in value. The area of land under notification at 30th June, 1929, was 1,067,158 acres, embraced in 75 estates.

At any time after a proclamation of intention to consider the advisableness of acquiring an estate, if an agreement be made that the land shall be subdivided for closer settlement by the owner, the power of resumption may be suspended for a term not exceeding two years. Any sale or lease made under such agreement, and any subsequent sale, lease, or transfer made within five years of the original sale or lease, must be submitted to the Minister, and if it be found that the owner has failed to fulfil the conditions, the suspension of the power of resumption shall cease.

The total area acquired to 30th June, 1929, under the ordinary provisions of the Closer Settlement Acts, was 1,314,635 acres, at an aggregate purchase price of £4,922,378. This area, originally consisting of sixty-eight estates, was divided into 2,558 farms. These figures were revised during the year as the result of investigation. During 1928-29 three estates were acquired with a total area of 137,233 acres at a cost of £194,357; these were divided into sixty-four farms. Operations under the ordinary provisions of the Closer Settlement Acts are now confined mainly to promotion proposals, *i.e.*, cases where owners agree to sell estates under closer settlement conditions. Particulars of the provisions of the earlier Closer Settlement Acts and details of the operations thereunder are given in previous Year Books.

Closer Settlement Promotion.

The provisions of the Closer Settlement Acts of 1918 and 1919, which replace the Closer Settlement Promotion Act, 1910 (repealed), enable three or more persons, or one or more discharged soldiers, each of whom is qualified to hold a settlement purchase, to negotiate with an owner of private lands, and under certain conditions to enter into agreements with him to purchase a specified area on a freehold basis, for a price to be set out in each agreement. Any one or more discharged soldiers or sailors may also enter into agreements to purchase on a present title basis from

the holder a conditional purchase; a conditional purchase lease; a conditional purchase and conditional lease, including an inconvertible conditional lease; a homestead selection; a homestead farm; a settlement lease; a Crown lease, or any part of one or more of such holdings, or an improvement or scrub lease, not substantially more than sufficient for the maintenance of a home.

Upon approval by the Minister, the vendor, in the case of private land, surrenders the area to the Crown, and the purchaser acquires it as a settlement purchase. In the case of land acquired on present title basis, the vendor transfers it to the purchaser. The vendor is paid by the Crown, either in cash or in Closer Settlement Debentures, and the freehold value of the land, inclusive of improvements thereon, purchased for any one person must not exceed £3,000, except in special cases where the improvements warrant it, when the freehold value may be up to £3,500; if the land is found suitable for grazing only, the freehold value may be up to £4,000.

Each farm is worked independently, the co-operation of the applicants ceasing with the allotment of an area. Each applicant has to pay a deposit of $6\frac{1}{2}$ per cent. of the Crown valuation of the farm granted to him, except discharged soldiers or sailors, who are not required to pay any deposit. Repayments of the balance of the purchase money to the Crown are subject to the regulations in force at the date of commencement of title. At present the regulations provide for repayment at the rate of $6\frac{1}{2}$ per cent. per annum of the capital value of the farm, where the purchase money is paid in cash; this includes interest at the rate of $5\frac{1}{2}$ per cent. on the outstanding balance, the whole indebtedness being discharged in thirty-two years, where the initial deposit is paid. If the land is paid for by debentures, the deposit and annual instalments to be paid by applicants are $1\frac{1}{2}$ per cent. in advance of the rate of interest paid by the Crown in connection with the debentures, and the interest to be paid on the unpaid balance of purchase money is $\frac{1}{2}$ per cent. in advance of the rate of interest paid by the Crown as aforesaid.

Postponement of the payment of instalments and of interest for a period may be sanctioned in special circumstances, and holders of farms may obtain advances from the Rural Bank Commissioners on account of improvements effected.

The total number of promotion proposals under the Closer Settlement Acts allotted and finally dealt with for which payment had been made by the Government Savings Banks and from the Closer Settlement Fund as at 30th June, 1929, were 3,857 farms, representing 1,953,839 acres, in respect of which a sum of £8,622,385 had been advanced; of this number 1,149 farms, embracing an area of 471,104 acres at a cost of £2,439,230, were paid for by the Government Savings Bank, and payment was made from the Closer Settlement Fund in respect of the balance.

In all (exclusive of irrigation projects) 1,855 estates and leases had been acquired by the Government for purposes for closer settlement of civilians and returned soldiers. These estates embraced 4,019,082 acres, for which the purchase price was £14,302,137, and there were added 104,326 acres of adjacent Crown lands. The total number of farms made available was 7,849.

Summary of Closer Settlement Operations.

The following table provides a summary of the various closer settlement operations to 30th June, 1929, including lands acquired and administered under the Closer Settlement and Returned Soldiers' Settlement Acts, lands acquired by executive authority and by virtue of section 197 of the Crown

Lands Act, and administered by the Department of Lands, but omitting long-term leases acquired under Closer Settlement Act, 1912, and disposed of under the Crown Lands Act.

Mode of Acquisition.	Estates Acquired	Area.		Price paid for Acquired Land.	Farm blocks made available.		
		Acquired.	Adjacent Crown Lands.		No.	Area.	Value.
	No.	Acres.	Acres.	£		Acres.	£
Direct Purchase* ...	28	264,923	545	451,606	452	252,369	743,088
Crown Lands Act (s. 197)†	22	58,222	672	293,427	444	54,991	503,426
Closer Settlement Act—							
Promotion Provisions...	1,673	1,816,607	...	8,433,927	3,790	1,816,607	8,433,927
Ordinary Provisions ...	68	1,314,635	195,152	4,922,378	2,558	1,443,029	5,516,970
Resumption of Long Leases ...	64	564,695	...	200,799	605	‡	‡
Total ...	1,855	4,019,082	196,369	14,302,137	7,849	...	...

* Including 19,646 acres of improvement lease, and 160,028 of scrub lease acquired at nominal value.

† Including one estate of 21,309 acres, surrendered at nominal value for returned soldiers.

‡ Allotted as Crown Leases and Homestead Farms.

The foregoing figures were revised after departmental inquiry in 1928-29, and during that year there were small transactions under both promotion and ordinary provisions of the Closer Settlement Acts.

The number of estates acquired under the promotion provisions of the Closer Settlement Act is comparatively large, because over 900 individual holdings, besides holdings containing only a few farms, were acquired mainly for soldier settlers. In some cases two or more farm blocks have been amalgamated and made available as one farm.

So far as can be ascertained, the lands covered by the above table were disposed of as follows at 30th June, 1929:—

Manner of Disposal.	Farms Occupied.		
	No.	Area.	Capital Value.
		acres.	£
Settlement Purchases—In existence* ...	5,745	2,680,924	12,261,004
Alienated (deeds issued) ...	59	20,830	\$
Converted into Homestead Farms ...	43	23,543	102,929
Soldiers' Group Purchases Confirmed** ...	923	431,692	1,924,871
Provisionally Allotted ...	120	6,550	\$
Under Cultural System† ...	107	5,145	\$
Seven Estates disposed of under Crown Lands and Returned Soldiers' Settlement Acts ...	46	186,151	\$
Total disposed of and in occupation ...	7,043	3,354,835	\$

* Including settlement purchases occupied by returned soldiers, and including a small area temporarily under permissive occupancy. † Orchard blocks in course of development. § Not available.

** As revised to meet legal requirements.

The above particulars of farms made available and farms occupied represent provisional totals only and are subject to amendment upon completion of investigations now in progress.

In addition to the lands shown in the foregoing tables, 64 improvement, scrub, and 18th section leases were resumed by the Crown upon the recommendation of the Closer Settlement Advisory Board. These embraced an area of 564,695 acres, for which a sum of £200,799 was paid as compensation, and they were subdivided into 605 farms and allotted as Crown leases and homestead farms under the Crown Lands Act.

The balance of purchase money in respect of the above farms under the Closer Settlement Acts, omitting group soldier settlements, as at 30th November, 1922, including deferred and postponed instalments and adjusting interest, amounted to £10,233,173, and it was estimated that the balance of assets over liabilities was £889,705. Arrears of instalments at the same date were £349,043, and at 30th June, 1929, £770,141 in respect of 2,516 farms.

Other Closer Settlement Operations.

The Rural Bank in April, 1923, issued particulars of a scheme of advances to facilitate subdivision of private estates, and the first Rural Bank loan of £1,000,000 at 5½ per cent. was raised locally for the purpose.

The Bank is prepared, after inspection, to issue certificates as to the amount it is willing to advance to purchasers of land under subdivisional plans approved by the Land Settlement Board and the Bank. Interest is charged at the rate of 6¼ per cent., and the maximum advance is £3,000, or two-thirds of the Bank's valuation of the property, whichever is the less. In the case of properties not fully improved the advance may be as great as 80 per cent. of the Bank's valuation, subject to specified improvements being carried out at the purchaser's expense.

By 30th June, 1929, Rural Bank certificates had been issued in connection with the proposed subdivision of 176 estates into 793 farms, containing 650,291 acres, valued at £2,705,543. The amount of loans covered by the certificates was £1,996,310. Altogether 738 farms, covering 597,588 acres, had been selected under the scheme. Applications for advances of £1,716,645 on 722 farms have been made and payments amounting to £1,651,845 have been completed for 699 farms.

Besides these, the owners of large estates within 15 miles of the railways being constructed in this State by the Victorian Government, were requested by the Government of New South Wales to subdivide a reasonable proportion of their holdings. As a result settlement has been effected in respect of 397 mixed farms comprising 565,173 acres and 48 grazing farms embracing 221,959 acres.

SETTLEMENT OF RETURNED SOLDIERS.

To 30th June, 1929, farms had been allotted to 9,148 returned soldiers, and there remained 5,698 returned soldier settlers on an area of 8,085,286 acres including 4,138,613 acres in the Western Division. These totals exclude 663 soldier settlers on private lands to whom advances only were made. The total expenditure is shown below:—

	£
Resumption of holdings for settlement ..	8,085,108
Advances to settlers	7,376,066

Under the Returned Soldiers' Settlement Acts, special provision is made for the settlement of discharged soldiers on Crown lands, including the Murrumbidgee Irrigation Areas, and on lands acquired under the Closer Settlement Acts and otherwise.

Land has been made available principally under the following tenures:—

1. Homestead Farm.—Lease in perpetuity.
2. Crown Lease.—Lease for 45 years.
3. Returned Soldiers' Special Holding.—Purchase or lease.
4. Suburban Holding.—Lease in perpetuity.
5. Irrigation Farm.—Purchase or lease in perpetuity.
6. Group purchase.
7. Settlement purchase.

Provision also exists in the Closer Settlement Acts under which one or more discharged soldiers may purchase privately-owned land upon terms approved by the Minister for Lands, the Crown providing the whole of the purchase money. Transactions of this nature are permitted only in cases in which additional settlement is provided. The Minister has discretionary power to refuse any such proposal.

The maximum value of land and improvements which may be so purchased by any individual is £3,000; in special cases, however, this may be increased to £3,500 or £4,000 for purely grazing areas.

An advance not exceeding £625 may be made available for each soldier settler, but it must be used only for the general improvement of the land, purchase of implements, stock, seed, and other necessities, or in the erection of buildings. The total amount advanced by the Department of Lands under the Returned Soldiers' Settlement Act to 30th June, 1929, was £3,147,712, and of this sum £1,325,892 had been repaid, while interest amounting to £475,621 had been paid.

Terms of repayment are usually as follows:—

House and other Permanent Improvements.—By payments over twenty-five years, interest only being charged during first five years.

Stock and Implements.—Six years, interest only being charged during first year.

Seeds, Plants, &c.—One year.

From April, 1923, a scheme of consolidating advances was introduced, and the terms upon which loans were granted were liberalised, being usually extended to twenty-five years on the security of a mortgage over the holding.

Interest as fixed under the Acts may not exceed $3\frac{1}{2}$ per cent. for the first year and 4 per cent. for the second year, and it increases progressively by not more than $\frac{1}{2}$ per cent. for each subsequent year, the maximum rate at present being $5\frac{1}{2}$ per cent.

Subject to such conditions as to security and terms of repayment as the Commission may think fit to impose, soldier settlers on the Murrumbidgee and Cullwaa Irrigation Areas may obtain an advance, or have payment of rent and water rates suspended. The expenditure by the Irrigation Commission on returned soldiers' settlement during 1928-29 was £103,964, making a total of £4,318,082 to 30th June, 1929. Repayments and collections to the same date amounted to £897,336.

The following table affords a summary of the number, area, and cost of private estates acquired for soldiers' settlement to 30th June, 1929:—

Class of Acquisition.	Estates.	Area.	Purchase Money.	Farms made available [†]
	No.	acres.	£	No.
Promotion Provisions Closer Settlement Acts* ...	1,457	1,198,502	5,578,946	2,282
Group Settlement—Closer Settlement Acts ...	25	395,970	1,809,710	746
Section 197, Crown Lands Act† ...	19	53,366	247,033	423
Direct Purchase under authority of Executive Council‡ ...	25	264,826	449,419	450
Total ...	1,526	1,912,664	8,085,108	3,901

* Includes 953 single farms. † Includes one estate surrendered at nominal value, practically as a gift.

‡ Includes 179,674 acres long-term leases at nominal value.

There were no further transactions during the year 1928-29. The figures in the table represent the results of departmental revisions during the year.

IRRIGATION AREAS.

The principal irrigation scheme is on the Murrumbidgee River. It covers an area of 359,000 acres, of which 301,000 acres were formerly freehold and leasehold land. Approximately one-third of the total area has been converted into irrigation farms.

The disposal of Crown lands within irrigation areas is regulated by the Crown Lands Consolidation Act, 1913, and the Irrigation Act, 1912-1929. These areas are administered by the Water Conservation and Irrigation Commission.

Land is, from time to time, made available for disposal by way of purchase in fee simple (freehold) or lease. The purchase money or annual rental, as the case may be, is fixed by proclamation in the *Government Gazette* notifying the land as available for application.

The purchase money, after payment of deposit (£5), may be paid by half-yearly consecutive instalments including principal and interest at the prescribed rate, which at present is 6½ per cent. per annum. The number of instalments in the case of an irrigation farm purchase may be seventy-three, and in a non-irrigable purchase the number is determined by the *Gazette* proclamation. In the case of a town land purchase the purchase money is payable under the terms and conditions notified in the *Gazette*, but the time allowed for payment must not exceed five years.

In the case of leases the annual return for the first twenty-five years of the lease is fixed by the *Gazette* proclamation and thereafter is assessed as for periods of twenty years at the fair market annual rental value of the lease irrespective of any improvements thereon as may be agreed upon by the Commission and the lessee. Failing such agreement the rental is determined by the Land and Valuation Court. Where a lease is transferred or otherwise dealt with within the first fifteen years thereof, the annual rental for the unexpired portion of the current period may be re-assessed as above.

Improvements of a certain value are required to be effected on the land within a period fixed by the Commission.

Any male person not less than 16 years of age, or female not less than 18 years, if not subject to certain statutory disqualifications, is eligible to apply for or acquire land on the Irrigation Areas, and two or more such persons may apply for and hold the land jointly.

A married woman, not living apart from her husband under an order of judicial separation, is disqualified from applying for land, except that, with the consent of the Minister, she may acquire a lease or purchase by way of transfer, out of her own moneys. She may, however, continue to hold a lease or purchase which she held before her marriage and hold a lease or purchase which may devolve on her by will or intestacy of a deceased person.

The term of residence must commence within six months after the granting of the application for the land, but this condition does not apply generally to a town land lease or town land purchase, a non-irrigable lease, or a non-irrigable purchase. This condition may also be suspended on such terms as the Commission may sanction and, with the consent of the Commission, may be performed by a tenant, employee, or agent of the holder or by one or more of joint holders.

A holder will be relieved of the performance of the residential condition when the Commission certifies that the necessary improvements have been effected to its satisfaction.

The holder of a perpetual lease may convert it into a purchase subject to certain provisions, if, in the opinion of the Commission, he has complied with the terms of the lease.

Upon the payment of all moneys due and compliance with the conditions of any purchase or perpetual lease, the holder is entitled to a grant in the prescribed form.

Holdings may be transferred with the consent of the Commission.

Irrigation settlements have been established also at Hay and at Curlwaa, near Wentworth. These were, in 1913, placed under the control of the Water Conservation and Irrigation Commission. The tenure under which farms are held in these two areas is leasehold, ranging from three to thirty years' duration, and the policy adopted by the Commissioners has been to extend the tenures, subject to such conditions and reappraisal of rent as they may decide.

The Hay Irrigation Area consists of an area of 4,500 acres; and at 30th June, 1929, 1,027 acres were held by sixty-two settlers in 107 irrigation blocks, ranging from 3 up to 30 acres, all, with the exception of one holding which is freehold, with a leasehold tenure of thirty years, while 2,886 acres were leased as fifty-three non-irrigated blocks for short terms up to five years. Arrangements have been made to add a further 2,000 acres of dry area to this settlement. The Curlwaa Area comprises 10,550 acres; and at 30th June, 1929, an area of 2,161 acres was under occupation as irrigated holdings. In addition, 7,011 acres were leased as non-irrigated holdings. The Coomealla Irrigation Area embraces 3,090 acres, of which 1,820 acres were occupied as horticultural holdings and 132 acres as dry areas at 30th June, 1929.

The following table shows the number and area of farms in occupation on each of the irrigation areas at 30th June in each of the five years to 1929:—

Year ended 30th June.	Murrumbidgee.				Hay.		Curlwaa.		Coomealla.		
	Farms.		Town Blocks.		Farms.		Farms.		Farms.		
	No. *	Acres.	No.	Acres.	No.	Acres.†	No.	Acres.†	No.	Acres.	
1925	...	1,991	112,480	835	208	71	3,911	119	9,428	1	25
1926	...	1,965	111,758	844	202	70	3,911	116	9,194	6	119
1927	...	1,931	117,385	856	205	68	3,911	115	9,512	80	1,362
1928	...	1,843	115,490	863	201	69	3,901	121	8,858	102	1,728
1929	...	1,795	120,389	886	209	61	3,901	124	9,172	105	1,873

* Reduction in number of farms is due to forfeitures, surrenders, etc.

† Balance of area not occupied as farms, comprises roads, channels, and other reserves, including permissive occupancy.

At 30th June, 1929, an area of 2,184 acres was in course of alienation as irrigation farm purchases, besides 79 acres as town land purchases and 37 acres as irrigable and non-irrigable purchases.

Further information concerning the irrigation schemes of the State will be found in chapter "Water Conservation and Irrigation" of this Year Book.

LAND RESUMPTIONS AND APPROPRIATIONS.

Alienated land required by the State may be obtained by resumption, purchase, exchange, surrender, or gift. Resumptions are made under the Public Works, Lands for Public Purposes Acquisition, and Local Governments Acts, and except when made for purposes of Public Instruction or Railways they are treated by the Valuer-General. Resumptions for Federal

purposes are made under the Commonwealth Lands Acquisition Act, 1906-16, Lands Acquisition (Defence) Act, 1918, and War Service Homes Act, 1918-20. Any Crown lands may be appropriated for public purposes.

The following statement shows the area of resumptions and appropriations and of the principal purchases which were made during the past five years. Purchases of land for hospitals and other semi-public purposes are not included.

Year ended 30th June.	Resumptions and Purchases.			Crown Lands Appropriated.			Gifts.			Total.		
	a.	r.	p.	a.	r.	p.	a.	r.	p.	a.	r.	p.
1925	2,640	3	20	3,062	2	10	7	2	0	5,710	3	30
1926	2,182	2	21	983	1	2	9	0	3	3,174	3	26
1927	8,122	0	24	805	1	15	6	3	32	8,934	1	31
1928	2,286	3	13	617	2	11	29	1	37	2,933	3	21
1929	3,939	3	36	1,216	2	4	10	0	34	5,166	2	34

The purposes of resumptions, appropriations, and purchases during 1928-29 were:—

						Area.									Area.		
						a.	r.	p.							a.	r.	p.
Water Dip	...	...	...	...	...	2	0	9	Fire Station	...	...	...	...	...	0	0	35
Catetry	...	...	...	...	...	21	2	10	State Pipe Works	...	...	...	...	...	3	2	11
Bridge...	...	...	...	...	...	1	3	20	Shire and Municipal Roads,	...	...	...	...	...	...	...	...
Defence	...	...	...	...	...	0	0	1	Streets, etc.	...	...	...	...	...	330	2	14
Electricity Supply	...	...	...	...	...	24	0	37	Shire Quarry or Gravel Pits...	...	...	...	...	...	13	1	35
Hospital	...	...	...	...	...	0	1	24	State Metal Quarry	...	...	...	...	...	29	1	7
Police Stations	...	...	...	...	...	2	2	2	Stormwater Channels and	...	...	...	...	...	...	...	...
Postal	...	...	...	...	...	0	3	15	Drainage	...	...	...	...	...	2	1	33
Public School Sites	...	...	...	...	...	331	2	18	Water Storage and River	...	...	...	...	...	...	...	...
Railway and Tramways	...	...	...	...	...	2,612	0	6	Dam	...	...	...	...	...	1,496	3	8
Recreation Grounds, etc.	...	...	...	...	...	22	1	13	Water Supply	...	...	...	...	...	261	0	32
Savings Bank	...	...	...	...	...	4	2	34									
Sewerage	...	...	...	...	...	4	3	30									
									Total	...	...	...	...	...	5,166	2	34

Land resumptions, purchases, and gifts in quinquennial groups from the year 1905 inclusive, were as follow:—

Year.	Resumptions, Appropriations, and Purchases.			Gifts.			Total.		
	a.	r.	p.	a.	r.	p.	a.	r.	p.
1905-09	105,848	3	8	439	1	27	106,288	0	35
1910-14	282,008	3	17	117	0	10	282,125	3	27
1915-19	64,194	0	35	81	0	35	64,275	1	30
1920-24	84,046	1	6	91	1	32	84,137	2	38
1925-29	25,857	2	35	63	0	26	25,920	3	21

The total area of land dealt with in this way between 1890 and June, 1929, was approximately 583,000 acres, including about 288,000 acres for water conservation and irrigation projects, 53,000 acres for defence, 58,000 acres for railways and tramways, 32,000 acres for town water supplies, and 89,000 acres for closer settlement.

REVENUE FROM PUBLIC LANDS.

The revenue received from public lands during the years ended 30th June, 1926 to 1929, is shown on page 148 of the Year Book.

FOOD AND PRICES.

FOOD SUPPLY AND DISTRIBUTION.

New South Wales produces ample supplies of the food commodities which enter most largely into daily consumption, such as meat, bread, milk and butter. Local production of many other foods is augmented by importation from neighbouring States, and with the exception of tinned fish, the only items which are imported in large quantities from oversea countries are tropical products, e.g., tea, coffee, spices, etc. Rice also was obtained formerly by importation, but it is grown now on the Murrumbidgee Irrigation area in sufficient quantities to supply the whole of Australia.

Legislation, which gives the governing authorities power to supervise the conditions under which food is produced and distributed and to ensure a reasonable standard of quality, is contained in various enactments, the principal being the Pure Food Act of 1908, the Dairies Supervision and the Dairy Industry Acts, the Metropolitan Milk Act, the Local Government Act, and measures relating to the slaughtering of stock for food and to the marketing of primary products.

The administration of the food laws in incorporated areas is primarily the duty of the Board of Health, but the function may be left to the municipal and shire councils. If a council fails to fulfil the duty satisfactorily, the Board itself may exercise its powers in respect of these matters, or may take steps to compel the council to act.

The Board of Health drafts regulations under the Pure Food Act to prescribe standards for the composition, purity, and quality of foods and drugs upon the recommendation of an Advisory Committee, consisting of the president of the Board, medical men, and chemists, merchants, and others conversant with trade requirements. With a view to securing uniformity throughout Australia, the regulations have been standardised so far as the divergence of the laws of the various States will permit.

Under the Pure Food Act the sale or exhibition for sale of food which is adulterated or described falsely is prohibited, and packages must be labelled with the true description and weight of the contents and the name of the maker or vendor.

The Commonwealth Department of Trade and Customs exercises supervision in regard to the composition and labelling of food and of drugs imported into Australia.

The Weights and Measures Act affords protection to the public from dishonesty in regard to the measurement of food in the course of distribution. It prescribes that traders' weighing and measuring appliances must be kept to a specified degree of accuracy and be submitted periodically to the Weights and Measures Office for verification, and that purchasers must receive full weight and measure.

The standard weights and measures of the United Kingdom have been adopted. It is a general rule that articles sold by weight must be sold by avoirdupois weight. The exceptions are as follows:—Precious metals, by troy weight; precious stones; by metric carat; drugs, retail, by apothecaries' weight. Sales by retail must be according to net weight or measure, and the practice of selling certain vegetables—*e.g.*, green peas in the pod—and other commodities by measure of capacity has been prohibited by regulation. The net weight or measure must be stamped on packages in which commodities are offered for sale. Special provision has been made to prevent fraud in respect of the weighing of coal and firewood.

Weights and Measures Offices have been established in Sydney, Newcastle, Goulburn, Orange and Wagga, and in these districts the law is administered by permanent officers. In other localities the duties of inspection are undertaken generally by the police.

The weight of bread is regulated under the provisions of the Bread Act of 1901. The standard loaves weigh 1 lb., 2 lb., and 4 lb. Operations under the Act are subject to limitation as the result of legal decisions that the existing law does not authorise the inspection of bread in the course of delivery, and that an inspector may enter a bakehouse between the hours of sunrise and sunset only.

Gas supplied by gas companies for cooking, heating and lighting is subject to regulation in terms of the Gas Act, 1912, and its amendments. Standards are prescribed in respect of power, purity and pressure, and the prices are regulated in relation to the dividends paid to shareholders. Standard prices are fixed for gas supplied to private consumers by meter, and they may be varied, after inquiry into changes in costs of production and distribution. If the standard price is charged the standard dividend may be paid; if it is exceeded there must be a corresponding reduction in dividend; and if a price lower than the standard price is charged a dividend proportionately higher than the standard dividend may be paid. Meters issued for use by a gas company must be tested and stamped by a Government examiner.

The Farm Produce Agents Act, 1926, makes legal provision for the regulation of the practices of agents selling farm produce on commission. Agents must be licensed, and are required to furnish to the Registrar a bond for £500 from an insurance company or some such security as prescribed. Agents may not purchase produce consigned to them for sale unless the owner gives his consent in writing, and they may not charge commission on such transactions. The destruction of produce to raise the price of similar produce is prohibited, also the practice of forestalling, that is, buying produce in a market and selling it there wholesale at an enhanced price.

In the matter of distribution of food supplies, the local governing authorities in the incorporated areas of New South Wales are authorised to establish public markets and to regulate the hawking and peddling of food commodities within the area of their jurisdiction.

The Municipal Council of Sydney has established large markets in the city for vegetables, farm produce, fish, and poultry, the area and cost being as follows:—

Market.	Floor Space.	Cost of Market.	Market.	Floor Space.	Cost of Market.
	sq. ft.	£		sq. ft.	£
Vegetable ..	95,560	127,000	Fish	47,517	49,000
Produce	45,300	48,300	Poultry	12,200	27,500
Fruit	143,000	119,500			

Cold storage works have been constructed with chilling and freezing rooms for the storage of fruit, dairy and farm produce, mutton and rabbits, and their cost was £99,000. The total storage capacity is 252,687 cubic feet. Provision is made to supply power for an ice-making plant, also for an addition of cooling space as may become necessary.

Outside the city area the local governing bodies have made little use of their powers in relation to the establishment of markets.

A conference of producers and consumers convened by the Minister for Lands, met at Bathurst in September, 1926, for the purpose of considering the causes of the disparity between the prices paid by the consumer and the returns received by the producers, also the waste in marketing food-stuffs. In the following year the Marketing of Primary Products Act was passed to authorise the formation of marketing boards in respect of primary products as proclaimed under the Act upon the request of the producers. A marketing board for any product may not be formed unless a poll be taken of the producers thereof and two-thirds of the votes are in favour of its constitution. At the end of the year 1930 boards had been appointed for marketing rice, eggs, and honey, and polls in respect of butter, wheat, certain varieties of canning fruit, and broom millet had proved unfavourable to this system of marketing. A State Marketing Bureau has been established under the supervision of the Director of Marketing who administers the Marketing of Primary Products Act. The Bureau provides assistance to producers in regard to the marketing of their products, and it collects and publishes information relating to market conditions, etc.

Preliminary arrangements have been made for another conference of producers and consumers in the year 1931.

CONSUMPTION OF FOOD.

It is difficult to determine accurately the quantity of commodities consumed within the State since 13th September, 1910, when the system of keeping records of interstate trade ceased. In view, however, of the special interest attached to the question of food consumption, particularly in relation to the cost of living, data has been obtained from other sources for the following estimates of the consumption of the more important articles of diet.

In order to show the changes of regimen, the information is shown as at ten-year intervals since 1901. In regard to 1911 it has been assumed that the consumption of all the commodities except meat was the same as the average of the three years, 1907-1909. The quotations for 1921 and 1929 relate to the twelve months ended 30th June:—

Commodity.	Unit.	Consumption per head per annum.				Commodity.	Unit.	Consumption per head per annum.			
		1901.	1911.	1921.	1929.			1901.	1911.	1921.	1929.
Meat—						Flour	lb.	244.4	223.4	211.2	205.7
Beef	lb.	134.4	150.9	94.0	116.9	Bread	2-lb.	105.0	10.0	99.0	100.0
Mutton	lb.	90.7	101.3	66.1	74.1	loaf.	lb.	7.8	6.8	4.4	4.1
Pork	lb.	4.6	5.0	2.3	5.2	Rice	lb.	1.9	2.0	1.3	1.4
Bacon, Ham ..	lb.	9.0	10.7	8.1	11.8	Sago, Tapioca ..	lb.	7.0	7.6	4.9	5.0
Total Meat ..	lb.	238.7	267.9	170.8	208.0	Oatmeal	lb.	107.8	103.8	102.2	109.4
Fish—						Sugar	lb.	14.2	15.7	11.4	11.8
Fresh, Smoked ..	lb.	4.8	6.4	10.9	11.6	Jam	lb.	19.6	26.1	27.8	34.5
Preserved	lb.	4.7	4.3	2.8	4.6	Butter	lb.	3.7	3.5	3.4	3.9
Total Fish ..	lb.	9.5	10.7	13.7	16.2	Cheese	lb.	16.4	17.4	19.6	21.0
Potatoes	lb.	197.7	181.0	104.9	110.2	Fresh	gal.	3.5	4.4	5.9	6.9
						Pr. served ..	lb.	7.9	7.3	5.1	7.7
						Tea	oz.	13.3	11.0	10.9	11.1
						Coffee and Chicory	oz.				

The consumption of fresh fish, as estimated above, is exclusive of the catches of private fishermen, and of a proportion of the fish caught by licensed fishermen and sold to consumers in the immediate vicinity of the fishing grounds. In estimating the consumption of potatoes, the quantities produced on holdings which are less than one acre in extent, and in market gardens, have not been taken into account, as particulars relating

to such quantities are not recorded. The potatoes and rice used for seed are not included. The figures relating to the consumption of sugar include the sugar contents of golden syrup and treacle. The consumption of fresh milk is exclusive of the quantities recorded as being consumed in the form of sweet cream or used in the manufacture of ice-cream.

The average consumption of nearly all the principal food commodities, such as meat, fish, potatoes, sugar, butter and milk was greater in 1929 than in 1921, though much below the average of the year 1911.

Meat.

The quantity of meat consumed is large, though it declined during the decennium 1911 to 1921. There is little doubt that its cheapness in the earlier years caused a wasteful consumption and that a shrinkage in supplies due to the depletion of herds and flocks during the drought of 1914-15 and a phenomenal rise in prices led to economy in its use and a consequent diminution in the average consumption per head. Approximately one-third of the meat sold for consumption is bone and waste. Therefore, the actual decline in consumption has been less than is indicated by the figures in the following statement, which shows the average annual consumption per head of the various kinds of meat at intervals since 1901 :—

Year.	Beef and Veal.	Mutton and Lamb.	Pork.	Bacon and Ham.	Total.
	lb.	lb.	lb.	lb.	lb.
1901	134·4	90·7	4·6	9·0	238·7
1906	140·5	89·8	4·2	9·2	243·7
1911	150·9	101·3	5·0	10·7	267·9
1915-16	97·5	72·2	2·0	7·9	179·6
1920-21	94·0	66·1	2·3	8·4	170·8
1925-26	125·4	64·1	3·8	12·9	206·2
1926-27	123·1	71·6	5·4	12·6	212·7
1927-28	111·4	77·5	3·8	13·0	205·7
1928-29	116·9	74·1	5·2	11·8	208·0
1929-30	99·6	78·3	4·6	12·3	194·8

Between 1911 and 1920-21 the consumption per head decreased by 97 lb., or 36 per cent., then an increase of 42½ lb. occurred in 1921-22. During the eight years ended June 1929, the average annual consumption was about 207 lb. per head.

The movement in the average retail prices of meat (including bacon and ham), and in the consumption per head of population is illustrated in the following table of index numbers, the average for the year 1901 being taken as 100 in each case.

Year	Average Retail Price of meat.	Average Annual Con- sumption of meat.	Year.	Average Retail Price of meat.	Average Annual Con- sumption of meat.
1901	100	100	1925-26	215	86
1906	101	102	1926-27	204	89
1911	101	112	1927-28	228	86
1915-16	223	75	1928-29	229	87
1920-21	248	72	1929-30	234	82

It is noticeable in regard to the consumption of meat in New South Wales that there is a preference for beef, though it is usually dearer than mutton.

The following statement shows the average retail prices in Sydney of each kind of meat. The averages are based on the same data as to prices and weights as those used for the compilation of the index numbers of retail prices of food which are shown elsewhere in this chapter:—

Year.	Average Retail Prices per lb.			
	Beef.	Mutton.	Pork.	Bacon.
	d.	d.	d.	d.
1911	4.1	3.2	8.1	9.6
1915-16	10.1	7.2	12.1	15.2
1920-21	9.9	8.3	18.3	22.6
1925-26	7.8	8.3	14.0	18.0
1926-27	7.7	7.4	13.9	17.7
1927-28	9.2	8.1	14.7	17.6
1928-29	9.1	8.2	14.7	17.7
1929-30	9.9	8.0	14.8	17.3

In 1920-21 when the average price of beef was 9.9d. per lb., and of mutton 8.3d., the average consumption of beef was 94 lb. per head, and of mutton 66 lb. During later years beef was cheaper or only slightly dearer than mutton, and the average consumption was about twice the consumption of mutton. Following an increase of 1½d. per lb. in the price of beef in 1927-28, the consumption declined and that of mutton increased. Average prices in the twelve months ended June, 1929, were practically the same as in the preceding year, then beef became dearer and mutton cheaper.

The slaughter of stock and the sale of meat in the county of Cumberland, which contains the metropolitan area, are under the control of the Metropolitan Meat Industry Board, which consists of three members appointed by the Governor.

In the Newcastle district, *i.e.*, within a radius of 14 miles from the Newcastle Post Office, slaughtering and inspection are controlled by the Newcastle District Abattoir Board. Outside the county of Cumberland and the Newcastle district, slaughtering is done at private abattoirs, which are subject to inspection by officers appointed by the local authorities and by the Board of Health.

The abattoirs controlled by the Metropolitan Meat Industry Board are situated at Homebush Bay in proximity to the stock saleyards. The carcase butchers purchase stock on the hoof, supply the labour for slaughtering and pay abattoir fees at fixed charges per head of stock treated. Meat for the metropolitan market is killed during the day and placed in a chill room until it is despatched to the city for distribution to the retail butchers. There is a distributing depot within the city area on the Darling Harbour railway line, and it has a capacity to accommodate 6,000 carcases of mutton and 600 carcases of beef.

An estimate of the number of livestock (cattle, sheep, and pigs) used for food in New South Wales in various years since 1901 is shown in the following statement:—

Year.	Bullocks and Cows.	Calves.	Sheep and Lambs.	Pigs.
1901	297,200	18,500	2,717,400	264,900
1911	412,300	54,500	4,068,300	335,400
1915-16	331,200	30,300	3,358,500	234,600
1920-21	404,400	78,300	3,483,500	247,600
1925-26	575,000	168,800	3,320,600	485,800
1926-27	606,800	143,900	4,068,700	518,700
1927-28	531,400	140,800	4,275,300	469,100
1928-29	563,600	157,100	4,162,500	493,400
1929-30	476,100	154,500	5,025,000	505,500

The figures differ from those published elsewhere in this volume showing the animals killed in slaughtering establishments, as the latter include animals slaughtered for export and those treated in boiling-down works. Moreover, the number of pigs shown in the table is larger than the number slaughtered in New South Wales in some years, when the production of bacon was not sufficient for local requirements.

Further particulars relating to meat are published in the chapter of this volume entitled "Pastoral Industry."

Fish.

The quantity of fish consumed in New South Wales in 1929 represented only 16.2 lb. per head, viz., fresh and smoked 11.6 lb. and preserved 4.6 lb.

The seaboard waters contain large supplies of edible fish, but owing to the climatic conditions it is difficult to devise an effective method of distributing fresh fish to private consumers, and it is not probable that fish will become a popular food throughout the State until this difficulty has been overcome. Under existing conditions the bulk of the fresh fish is consumed in the metropolitan district, where facilities for marketing are available. The greater part of the supply has been obtained in the river estuaries and coastal lakes and inlets, and the balance by deep-sea trawling. The proportion of trawled fish is increasing and in 1929 it represented about half the production.

The Sydney Corporation (Fish Markets) Act, passed in November, 1922, prescribed that in a defined area, which embraces the metropolitan and extra-metropolitan districts, fish may not be sold by auction except in public markets under the control of the council of a municipality or shire, and no person, except the original owner, may sell fish by wholesale unless it has been sold previously in a municipal market. The effect of the Act was to centralise the marketing of fish in Sydney in the Municipal Market, where the sales are conducted by licensed agents.

Regulations under the Fisheries Act require that all fish sold in the fish market or by wholesale dealers must be sold by weight.

Bread, Flour, and Cereal Foods.

Such food commodities as bread and potatoes were of greater importance in the usual family dietary in early years than at the present time, when a variety of vegetables and other foods are obtainable readily.

The average consumption of bread is estimated at about 100 loaves (2 lb.) per head. In March, 1926, baking between the hours of 6 p.m. and 5.30 a.m. was prohibited, also baking on holidays, and, in the counties of Cumberland and Northumberland, on Sundays. The prohibition does not apply, however, when the day upon which the bread is to be delivered is a "double" or a "treble" delivery, *i.e.*, a day preceding one or two holidays.

Before the prohibition of night-baking practically all the bread was delivered at the consumers' houses, but the practice became less common when a large portion of the bread could not be delivered on the day of baking, and customers began to buy at the shops in order to obtain fresher and cheaper supplies. In recent years there has been a marked increase in the quantity of bread consumed in restaurants and hotels, with a corresponding diminution in the average quantity delivered to householders.

The majority of the bakers are members of the Master Bakers' Association and the prices of bread in Sydney are fixed periodically by this organisation with relation to the price of flour, which is fixed by an association of millers. The variations in the price of bread in Sydney as declared by the Master Bakers' Association since December, 1920, are shown below in conjunction with the price of flour at the time when the price of bread was altered. The prices in 1901 and 1911 are given also for the purpose of comparison. The prices stated are for delivery and weekly payments. In recent years the price has been $\frac{1}{4}$ d. per loaf less for cash over the counter. As a general rule the prices declared by the Association may be regarded as fairly representative of the actual prices as the declarations were observed by members and by bakers who were not associated. In the latter months of the year 1930, however, bread was sold in many suburban shops at much cheaper prices—in some cases as low as 3d. per 2 lb. loaf. The price of flour at that time was £8 per ton.

Date.	Price of 2-lb. Loaf.	Cost of Flour per ton.	Date.	Price of 2-lb. Loaf.	Cost of Flour per ton.
	d.	£ s. d.		d.	£ s. d.
1901... ..	2 $\frac{1}{2}$	6 15 0	1927—January ...	6	12 10 0
1911... ..	3 $\frac{1}{2}$	8 15 0	September ...	6 $\frac{1}{4}$	13 15 0
1920—December ...	6 $\frac{1}{4}$	19 12 6	1928—February ...	6	12 10 0
1921—September ...	6 $\frac{3}{4}$	20 17 6	1929—February ...	5 $\frac{3}{4}$	11 0 0
December ...	5	11 15 0	1930—July ...	5 $\frac{1}{2}$	10 5 0
1924—July ...	5 $\frac{1}{2}$	13 0 0	September ...	5 $\frac{1}{2}$	9 10 0
October ...	5 $\frac{1}{2}$	15 5 0	October ...	5	9 0 0
1925—January ...	5 $\frac{3}{4}$	15 15 0	1931—April ...	5 $\frac{1}{2}$	10 0 0
1926—May ...	6	15 0 0			
July ...	6 $\frac{1}{2}$	15 15 0			
December ...	6 $\frac{1}{4}$	13 10 0			

The consumption of flour is estimated at 206 lb. per head, including 184,000 tons, or 150 lb. per head, used for bread. In factories where biscuits are made for local consumption and for export, 13,808 tons of flour, or 12.6 lb. per head, were used during 1923-29; but the quantity used by pastrycooks is not available. Exclusive of the quantity used for bread and biscuits, it is estimated that the average household consumption of flour by a family of five persons is about 4 lb. per week, or 42 lb. per head per annum.

The consumption of oatmeal declined between 1911 and 1921, probably on account of an increased consumption of other breakfast foods. In recent years the average has been about 5 lb. per head. The consumption of sago and tapioca is small, and the average fairly constant.

The average consumption of rice was about 4 lb. per head in 1928 and in 1929. The figure for 1928 was amended since the last issue of the Year Book. Until 1925 the supply of rice was imported mainly from China and India, and dressed locally by a mechanical process. During more recent years the rice has been grown on the Murrumbidgee Irrigation Area.

Butter, Cheese, and Milk.

Butter is an article of diet in general consumption throughout New South Wales, the local product being choice in quality and more than sufficient in quantity to supply the demand. The consumption of cheese is small, the average being 4 lb. per head per annum.

The quantity of fresh milk consumed is about 21 gallons per head per annum, or less than half-a-pint per day. Milk is regarded as one of the most valuable articles of diet, and it is desirable that the supply should be of good quality, plentiful, and available at a low price to enable families to consume it in sufficient quantities.

The conditions under which milk and other dairy products are produced and distributed for human consumption are subject to regulation under the Dairies Supervision Act of 1901—a consolidating measure which replaced a statute passed in 1886—and under the Pure Food Act of 1908, the Dairy Industry Act of 1915, and since 31st January, 1930, the Metropolitan Milk Act of 1929.

There has been a marked improvement in the condition of dairies since they were brought under supervision and this has been an important factor in effecting a reduction in the death-rates from preventable diseases. All dairymen and milk vendors must be registered, and dairy premises are open to inspection at all times. The duties of registration and of inspection are vested in the local authorities, and in respect of the metropolitan milk supply, the Metropolitan Milk Board. The administration of the Dairies Supervision Act is supervised by a staff of inspectors.

The standard for milk is fixed by regulation under the Pure Food Act, which prescribes that it must be normal, clean and sweet, and taken from a cow which is healthy, fed properly and milked regularly. It must contain 8·5 per cent. of solids, not fat, and 3·2 per cent. of milk fat, and must be free from any added substance. During the year 1929, inspectors collected 14,300 samples of milk, and 2·2 per cent. were found to be below standard. Prosecutions were instituted in 210 cases, and penalties in fines and costs amounting to £876 were imposed.

The Dairy Industry Act is applied generally to the manufacture of butter, etc., in factories, and its provisions are stated in the chapter relating to the dairying industry.

The Metropolitan Milk Act relates to the milk supply of the metropolitan milk area, which embraces the municipalities and shires in the metropolitan area as defined by the Local Government Act, and the municipalities of Fairfield, Holroyd, Ingleburn, and Liverpool. The Act is administered by a board of nine members. Five are appointed by the Governor, viz., the chairman who holds office for five years, two members representing the consumers of milk holding office for four years, and two advisory members appointed for two years to represent persons engaged in the business of milk distribution. These advisory members are not entitled to vote on matters coming before the board or any committee thereof. The other four members are elected for a period of four years by the dairymen producing milk for the metropolitan milk area, and for the purposes of the elections the various

districts where the milk is produced are grouped to form four constituencies. The metropolitan milk area forms one constituency, and the others are comprised by the municipalities and shires to the north, south, and west respectively of the metropolitan area. Four members entitled to vote form a quorum of the Board, and the chairman has a casting vote in addition to a deliberative vote.

The Board is charged with the regulation and control of the supply and distribution of milk within the metropolitan milk area. It is required to devise improved methods of distribution, to establish grades of milk, and to declare at a public inquiry the minimum price which may be paid to producers by milk vendors and the prices to be charged by vendors. The cost of administering the Act is defrayed by means of a levy upon dairymen, which was imposed as from 1st September, 1930, at the rate of $\frac{1}{4}$ d. per gallon of milk supplied for consumption or use in the metropolitan area.

About a quarter of the milk supply of Sydney is derived from dairies within the metropolitan area and the balance from country districts, viz., the South Coast district between Wollongong and Nowra, the districts traversed by the Main Southern Railway between Liverpool and Moss Vale, the Penrith, Windsor, and Richmond Districts, the districts around Singleton and Branxton on the Northern Railway line, and those in the neighbourhood of Dungog and Taree on the North Coast line.

The milk from the metropolitan dairies is distributed directly to the consumers within a few hours of milking, but the proportion of the supply from this source has decreased considerably, as the pressure of population and the demand for residential sites has caused the land used formerly for dairying to be diverted to other uses.

The milk from the country is handled for the most part by distributing companies. They take delivery from the producers on the farms in the districts near the metropolis if it is to be transported by motor vehicle or at country railway stations if it is to be carried by rail. The time occupied by the journey from the most distant stations is about ten hours, the average time between milking and arrival by rail in Sydney being between sixteen and twenty-four hours. In 1928-29 nearly 20,000,000 gallons of country milk were distributed in the metropolitan districts.

As at 31st December, 1929, there were 21,835 registered dairymen in the State, and the cattle in their dairy herds numbered 910,734. There were also 6,141 registered milk-vendors. In the metropolitan district there were 617 registered dairymen, with 14,203 cattle, and there were 4,868 registered milk-vendors.

The prices of milk in Sydney have been doubled since 1901, as indicated in the following statement, which shows the wholesale price paid by the distributing companies to the farmer for milk delivered on trucks at country railway stations, and the retail price charged to the householder for country milk, and for fresh milk from the metropolitan dairies.

Year.	Wholesale price to producers.	Retail.		Year.	Wholesale price to producers.	Retail.	
		Country.	Fresh.			Country.	Fresh.
	per gal. d. d.	per qt. d.	per qt. d.		per gal. d. d.	per qt. d.	per qt. d.
1901	6 to 7	4	4-5	1926	12 to 16	7½-9	8½-9½
1911	6 „ 9	4-5	5	1927	14 „ 16½	8½-9	9-9½
1916	8 „ 12	5-5½	6	1928	16½d.	9	9-9½
1921	13 „ 17	7½-8½	8½-10	1929	13 to 16	8½-9	8½-9½

The price paid to the producers was 1s. 4½d. per gallon throughout the year 1928, and it was reduced to 1s. 4d. in January, 1929, to 1s. 3d. in May and to 1s. 1d. in August. The average retail price for milk supplied by regular morning and evening delivery to householders in Sydney and suburbs was about 9d. per quart in 1928 and 1929. Milk has been sold also at a much lower price for cash at the carts of vendors who distribute throughout the day in some suburban areas.

In August, 1930, the Metropolitan Milk Board established four grades of milk—raw, pasteurised, special raw, and special pasteurised—and the prices were declared for the various grades. The minimum price to be paid to dairymen by vendors was fixed at 12½d. per gallon at dairy premises or 13d. at rail or country milk store or factory. For pasteurised milk or for raw milk produced outside the metropolitan area the prices to be charged by vendors were declared as follows:—At wholesale depots 1s. 7½d. per gallon; delivered elsewhere—10 gallons or less, 2s. per gallon, over 10 gallons 1s. 10d. per gallon; retail 2s. 10d. per gallon or 8½d. per quart. For raw milk produced in the metropolitan dairies the retail price was fixed at 3s. 2d. per gallon or 9½d. per quart; and for special raw or pasteurised milk 4s. per gallon or 1s. per quart.

In January, 1931 the Board decided to fix the prices at lower rates and many vendors reduced their prices to consumers when this decision was announced, though the determinations, which are shown below, had not been gazetted at 31st March, 1931. The new rates to be paid to dairymen were fixed at 10d. per gallon at dairy premises and 10½d. at rail. Retail prices were fixed at 2s. 4d. per gallon or 7d. per quart for raw or pasteurised milk from dairies outside the metropolitan area; 2s. 8d. per gallon or 8d. per quart for raw milk from metropolitan dairies; and 3s. 4d. per gallon or 10d. per quart for special milk.

Sugar and Jam.

The quantity of sugar consumed (109 lb. per head) appears high, but the average consumption, as estimated, includes the quantities used in the manufacture of products such as jam and biscuits, of which a proportion is exported. The records of the manufacturing industry in 1928-29 show that 5,712 tons of sugar (5.2 lb. per head) were used for jam and canned fruit; 3,455 tons (3.2 lb. per head) for biscuits; 5,505 tons (5 lb. per head) in breweries; 4,247 tons (3.9 lb. per head) in aerated water factories; 9,650 tons (8.8 lb. per head) in making confectionery and 3,000 tons (2.7 lb. per head) in making condiments, pickles and sauces, and condensed milk.

The average household consumption of sugar is estimated at 6 lb. per week for a family of five persons, or 62 lb. per head per annum.

In normal seasons sugar is produced in New South Wales and Queensland in sufficient quantity to supply local requirements. The retail price of sugar in the metropolitan shops is from 4½d. to 4¾d. per lb.

Jams and preserved fruit are manufactured in Australia in larger quantities than the local demand can absorb. During the war there was a great expansion in production for export, but increases in prices led to a shrinkage in the local consumption of the factory-made article, though it encouraged home production, of which records are not available.

Tea and Coffee.

Tea enters largely into consumption among all classes, the average annual consumption being nearly 8 lb. per head. Of coffee, on the other hand, the average was less than ¼ lb. per head.

The tea consumed in New South Wales is imported mainly from Ceylon and Netherlands East Indies. During the three years ended June, 1930, the Netherlands East Indies supplied about 49 per cent. of the total importations; 43 per cent. was imported from Ceylon, 6 per cent. from India and 2 per cent. from China. The figures for the three pre-war years, 1911-13, were:—Netherlands East Indies, 13 per cent.; Ceylon, 58 per cent.; India, 20 per cent., and China, 9 per cent.

The great bulk of the coffee is imported from the Netherlands East Indies and India.

Vegetables and Fruit.

The potato is the chief article of diet in the vegetable group, but it is subject to great fluctuations in supplies and in prices, and the consumption varies accordingly. Local production is inadequate, and large quantities are imported from Victoria and Tasmania. Imported potatoes are sold by private treaty on the wharf shortly after arrival, the wholesale prices being fixed by arrangement between the sellers. Locally-grown potatoes are sold by auction in the railway yards. In 1911 the average retail price of potatoes in Sydney was 12½d. per 14 lb., and the consumption per head was 181 lb. Potatoes were very dear throughout the year 1929. The average price in the twelve months ended June, 1929, was 2s. 6d. per 14 lb., and it is estimated that the average consumption was only 110.2 lb.

Onions are imported in large quantities from Victoria. Other vegetables are obtained chiefly from local sources, the Sydney supplies being marketed at the City Council's market, where the growers sell their produce by private treaty.

The fruit supply is derived mainly from the local orchards, and from Victoria, Tasmania, and Queensland. From November or December to February or March the supply is for the most part grown locally. From March to October the market for all fruits, except citrus, is supplied chiefly from the other States, and from May to December local supplies of citrus fruits are available. Prior to the war bananas were imported in large quantities from Fiji, but Queensland is now the chief source of supply, and small quantities are grown locally in the Tweed River district. The industry in Australia is protected by a duty of 1d. per lb. on imports.

In Sydney there are two fruit markets, viz., the Fruit Exchange, conducted by a private company, and the City Market, controlled by the City Council. Market sales are conducted generally by private treaty. The majority of the country and interstate distributors operate in the Fruit Exchange, which is exclusively a wholesale market. In the City Market, which has direct connection with the main railway system, a considerable amount of retail as well as wholesale trade is transacted, part of the space being reserved for the use of growers, and the remainder let to agents. The provisions of the Farm Produce Agents Act must be observed by agents who transact business in these markets.

WHOLESALE PRICES.

Information relating to wholesale prices in Sydney is published in detail in the "New South Wales Statistical Register." The average prices in each year from 1901 to 1920 are published in the issue for 1919-20, and the monthly averages in later years are shown in subsequent issues.

Index numbers of the wholesale prices in Sydney have been compiled from the prices of 100 commodities, which include the majority of items of importance in the economic life of the State. The commodities have been arranged in eight groups, and each commodity has been weighted according to the average annual consumption in New South Wales during the

three years 1911-1913. The index numbers indicate approximately the general trend of the movement in wholesale prices, but it is not claimed that they give an exact measure of the variations which have occurred. Those for recent years especially should be used with caution in view of the fact that the list of commodities and the weights applied to the various items are based on the customs and usages of a period which ended more than seventeen years ago. In view of the far-reaching changes which have taken place during the intervening years the list is being revised.

Details relating to the composition of the index numbers of wholesale prices are stated in the 1919 and 1920 issues of the Year Book, e.g., the grade of the articles or commodities included, the source of information as to prices, and the weights applied.

The index numbers of each group and of all groups combined in various years since 1901 are as follows. The numbers for each year from 1901 to 1921 are published in the 1921 issue of the Year Book. The prices in the year 1911 have been used as a base, and called 1,000. The indexes are not comparable between groups, except to illustrate the relative change in one group with the corresponding ratio in another.

Year.	I. Agricultural Produce.	II. Groceries	III. Wool, Cotton, Leather, Jute.	IV. Metals and Coal.	V. Building Materials	VI. Meat.	VII. Dairy Produce.	VIII. Chemicals.	All Commodities.*
1901	834	949	737	1001	745	1222	963	977	904
1906	929	960	937	996	806	1163	953	951	955
1911	1000	1000	1000	1000	1000	1000	1000	1000	1000
1913	1069	1033	1043	1039	1107	1379	1093	1003	1092
1916	1163	1245	1367	1725	1241	2896	1380	1617	1489
1920	2430	1914	3079	2602	2415	3113	2236	2301	2503
1921	1750	1941	1471	2511	2259	1921	2020	1863	1956
1926	1892	1683	1652	2161	1893	1802	1760	1447	1834
1927	1767	1682	1633	2197	1957	1971	1831	1483	1840
1928	1456	1674	1798	2176	1937	1985	1763	1492	1785
1929	1707	1661	1656	2164	1953	2391	1842	1457	1863
1930	1428	1664	1248	2046	1941	2230	1571	1472	1685

* Weighted average.

During the three years 1925 to 1927 there was little change in the index numbers of all commodities, though some groups showed material alteration. In 1928 there was a decline of 3 per cent., followed by an increase of 4.4 per cent. in 1929. This increase was due to dearer prices of meat which rose by 20 per cent., agricultural produce 17 per cent., and dairy produce 4½ per cent. The group consisting of wool, cotton, leather, etc., declined by 8 per cent.

In 1930 there was a decline of 10 per cent. in the general level of wholesale prices, as compared with that of the previous year. The groups in which the decline was greatest were wool, cotton, etc., 24 per cent., agricultural produce 16 per cent., and dairy produce 15 per cent.

The movement month by month since January, 1929, may be gauged from the following table, the base being the year 1911 as in the preceding table:—

Month.	I. Agricultural Produce.	II. Groceries.	III. Wool, Cotton, Leather, Jute.	IV. Metals and Coal.	V. Building Materials	VI. Meat.	VII. Dairy Produce.	VIII. Chemicals.	All Commodities.
1929.									
January ..	1655	1670	1736	2187	1921	1856	1848	1470	1814
February ...	1597	1670	1734	2175	1923	2252	1902	1458	1843
March ...	1539	1658	1755	2177	1923	2597	1858	1470	1861
April ...	1520	1657	1724	2188	1927	2707	1911	1458	1870
May ...	1533	1657	1670	2180	1949	2194	1963	1447	1821
June ...	1587	1648	1671	2158	1952	2178	1933	1447	1824
July ..	1771	1652	1637	2154	1967	2053	1851	1463	1841
August ...	1837	1652	1660	2154	1967	2355	1807	1463	1854
September ..	1929	1651	1669	2149	1966	2378	1784	1472	1923
October ...	1968	1674	1590	2149	1972	2677	1795	1456	1936
November ...	1870	1670	1533	2149	1972	2573	1731	1441	1890
December ...	1675	1673	1492	2149	1997	2671	1723	1441	1852
1930.									
January ...	1694	1670	1469	2159	1976	2690	1652	1464	1848
February ...	1570	1653	1397	2156	1976	2433	1705	1464	1788
March ...	1515	1653	1361	2156	1975	2338	1705	1464	1761
April ...	1574	1649	1341	2152	1957	2109	1675	1464	1738
May ...	1583	1643	1297	2153	1952	2085	1754	1476	1741
June ...	1559	1635	1273	2020	1916	2244	1749	1476	1721
July ...	1488	1650	1263	1941	1916	2575	1636	1464	1719
August ...	1482	1669	1222	1941	1926	2537	1556	1514	1706
September ...	1267	1668	1164	1965	1930	2206	1450	1514	1613
October ...	1245	1665	1071	1965	1921	1826	1363	1452	1547
November ...	1144	1690	1111	1966	1924	1939	1303	1452	1541
December ...	1025	1726	1009	1930	1923	1777	1302	1455	1493

The index number rose during the early months of 1929 and declined in April. Then the upward movement commenced again, and in October the price level was higher by 11 per cent. than in October, 1928. From this point there has been a persistent decline, and by December, 1930, the index number had fallen by 23 per cent. to the lowest level since 1916.

In the following statement the movement for the price levels of Australian products is compared with the change in respect of imported goods. The list of commodities and the weights and prices are the same as those used for the index numbers shown above, therefore the index numbers of imported goods are not suitable for measuring the price levels of all imports into the State for which it would be necessary to include a wider range of commodities with a different system of weighting and to use actual import values.

Year.	Wholesale Price Index Numbers.			Year.	Wholesale Price Index Numbers.		
	Australian Products.*	Imported Goods.*	All Commodities.		Australian Products.*	Imported Goods.*	All Commodities.
1911	1000	1000	1000	1925	1848	1867	1854
1920	2330	2919	2503	1926	1870	1747	1834
1921	1891	2111	1956	1927	1880	1742	1810
1922	1754	1911	1800	1928	1800	1750	1785
1923	1890	2007	1925	1929	1916	1726	1863
1924	1815	2016	1874	1930	1698	1653	1685

* Amended since last issue of Year Book.

The increase in the prices of imported goods between 1911 and 1920 was more pronounced, and the subsequent decline was greater than the movement in prices of local products. The prices of both classes of commodities reached the maximum in 1920, and between that year and 1926 the price level of imported goods fell by 40 per cent., while the index number of Australian goods declined by 20 per cent. During the years 1926 to 1929 the index of imported goods was fairly steady, then it declined by 4 per cent. A number of these commodities became dearer in 1930 as a result of higher duties, but this was offset by a fall in respect of such items as cotton and jute goods. The index number of Australian products was higher in 1929 than in any year since 1920 and there was a decline of 11½ per cent. in 1930.

The average wholesale prices of thirty-one commodities, which are representative of the various groups, are shown in the following statement. The quotations represent the mean of the monthly prices in Sydney except in the case of wool and cotton. For the former the average import value into Great Britain of Australian wool in each year is stated because it was not practicable to determine an average commercial price for the years when the Imperial purchase scheme was in operation. For cotton Liverpool (England) prices are stated.

Commodity.	1901.	1911.	1921.	1926.	1928.	1929.	1930.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Wheat, milling bush.	2 8	3 6	8 7·9	6 2	5 1·3	4 10·6	3 10·2
Flour ton	126 5	169 9	386 7	297 5	247 2	239 11	201 1
Chaff, wheaten "	65 0	81 0	128 9	156 3.	125 8	137 2	123 5
Hay, eaten "	75 0	94 5	151 11	166 4	143 4	150 4	141 9
Potatoes "	101 10	111 5	119 0	258 3	113 10	333 6	151 6
Sugar "	442 5	437 6	980 0	746 8	746 8	746 8	746 8
Tobacco, dark plug .. lb.	4 0	5 0	8 2	8 2	8 2	8 4	9 5
Tea "	1 1·5	1 1·5	2 1	2 2	2 2	2 2	2 2
Soap 40 lb.	14 6	18 4	28 9	27 0	24 0	24 0	23 2
Jam 20 "	9 6	6 10	14 5	11 6	12 0	11 6	10 4
Kerosene 8½ gal.	6 3	7 3	20 7·8	12 6	13 6	13 4	12 8
Leather, sole lb.	0 9·9	1 1·7	1 11·2	1 11	2 8	1 9	1 6·4
Woolpacks each	1 11·6	2 4	3 8·6	5 1·4	4 5	3 10	3 9·5
Iron—Pig, local ton	84 7	78 4	182 6	120 10	120 0	120 0	117 9
Plate, girder "	269 2	233 4	696 8	382 6	390 0	390 0	390 0
Corrugated, gal... .. "	360 10	346 8	979 2	605 10	538 4	517 6	517 6
Copper, sheet lb.	1 2	0 10·5	2 1·5	1 6·6	1 6·6	1 9	1 9
Coal ton	11 9	13 10	30 4·9	32 2	34 3	*	30 8
Hardwood, local (3 x 2) 100 lin. ft.	6 0	8 6	18 0	14 3	15 9	16 4	17 1
Pine—Local (4 x 1) 100 sup.ft.	17 0	25 5	62 0	62 0	61 0	61 0	62 6
N.Z. (4 x 1) "	20 3	22 2	62 0	45 0	41 7	41 0	41 4
Oregon (2 x 2) "	12 6	15 7	47 1	26 0	28 6	29 4	30 3
Bricks 1,000	33 6	42 0	68 0	70 4	72 8·2	71 7	62 5
Beef—Fores lb.	0 2·4	0 1·7	0 2·2	0 2·3	0 2·7	0 4·3	0 4·5
Hinds "	0 3·4	0 2·7	0 5·6	0 5·1	0 5·3	0 6·9	0 7·1
Mutton "	0 2·3	0 2	0 4·2	0 4	0 4·5	0 4·4	0 3·6
Butter "	0 10·6	0 10·6	1 9·6	1 7·8	1 7·8	1 10·0	1 6·3
Eggs, new laid.... .. doz.	1 3·4	1 4	2 3·8	1 10·9	1 11·8	1 10·0	1 7·5
Cream of tartar lb.	0 10·6	0 11·2	2 0	1 4·4	1 5·1	1 4	1 6·4
Cotton, raw lb	0 4·7	0 7	0 10·4	0 10	0 11·1	0 10·7	0 7·9
Wool, greasy "	0 8·3	0 10·8	1 1·5	1 8·5	1 9·4	1 7·3	6 1·5

* Not available.

During 1929 there were decreases in the average prices of wheat, flour, wool, cotton, leather, woolpacks, and corrugated iron. Potatoes were exceptionally dear and other commodities which were dearer than in the previous year included butter, beef, chaff and hay, and copper.

In 1930 there were substantial decreases in such commodities as agricultural products, mutton, coal, wool, cotton and butter. The only items in the list which showed an increase in average price during the year were tobacco, beef, timber, and cream of tartar.

Comparison with Other Countries.

The following statement shows the wholesale price index numbers for various parts of the British Empire and for the United States of America, with 1913 as common base, and affords an interesting comparison of the manner in which wholesale prices have varied during recent years:—

Year.	New South Wales. (Sydney). [Bureau of Statistics.]	Victoria. (Melbourne). [Common- wealth Bureau of Census and Statistics.]	New Zealand. [Census and Statistics Office.]	Canada. [Dominion Bureau of Statistics.]	United Kingdom. [Board of Trade.]	United States of America. [Bureau of Labour.]
Number of Commodities.	100	92	180	233	150	550
1913	100	100	100	100	100	100
1920	229	228	207	243	307	221
1921	179	175	192	172	197	140
1926	168	168	153	156	148	143
1927	169	167	147	152	142	137
1928	163	165	147	151	140	140
1929	171	166	147	149	136	138
1930	154	147	143	136	120	124

Prices had been increasing steadily in all countries for many years before the war, and the effect of the war on prices was less marked in the countries more remote from the centre of conflict. In every case there was a general increase in prices after the cessation of hostilities. The peak was reached during 1920, and there has since been a very marked decline. As compared with the wholesale prices in 1913, the index number in 1930 was higher in Australia than in New Zealand, the United Kingdom, Canada, or the United States.

RETAIL PRICES.

The average retail prices in Sydney of various commodities, as shown in this chapter, are based on the prices charged in shops in the metropolitan district, and the annual averages represent the mean of the monthly prices during each year.

The following statement shows the averages for various years since 1901. The averages for each year from 1901 to 1920 are shown in the 1919-20 issue of the "Statistical Register of New South Wales."

The table is useful for comparative purposes in regard to the measurement of the general change in prices, but the figures do not disclose a most interesting feature in a history of prices, namely, the fluctuations during the year, which are considerable, especially in the case of perishable produce. For such information readers are referred to the "Statistical Registers," where the average monthly prices are shown.

Commodity.		1901.	1911.	1913.	1916.	1921.	1926.	1929.	1930.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Bread	2lb. loaf	0 2 5	0 3 5	0 3 5	0 4 0	0 6 2	0 5 9	0 5 7	0 5 5
Flour	25lb.	1 11 0	2 9 0	2 10 0	3 6 1	6 1 6	5 2 3	4 5 0	4 1 5
Tea	lb.	1 3 0	1 3 5	1 3 8	1 6 1	1 10 7	2 3 2	2 2 1	2 1 2
Coffee and Chicory	"	1 5 0	1 5 0	1 5 5	1 6 0	1 11 6	2 2 4	2 2 4	2 1 8
Sugar	"	0 2 3	0 2 7	0 2 7	0 3 5	0 5 7	0 4 6	0 4 6	0 4 6
Rice	"	0 2 5	0 2 7	0 3 0	0 3 2	0 4 9	0 3 4	0 3 7	0 3 6
Sago	"	0 2 5	0 2 7	0 2 7	0 3 2	0 3 6	0 3 6	0 3 4	0 3 3
Jam (Australian)	"	0 4 0	0 4 4	0 5 0	0 6 0	0 10 0	0 8 1	0 6 9	0 6 7
Oatmeal	5lb.	0 11 3	1 0 5	1 2 3	1 2 6	1 8 0	1 8 6	1 8 6	1 7 8
Raisins	lb.	0 6 2	0 6 2	0 6 4	0 7 7	0 11 5	0 8 7	0 9 1	0 8 9
Currants	"	0 6 6	0 7 0	0 7 2	0 9 1	0 11 1	0 8 7	0 9 4	0 8 8
Starch	"	0 4 0	0 5 5	0 5 4	0 6 4	0 9 7	0 9 9	0 9 3	0 9 4
Blue	12 squares	0 9 0	0 9 0	0 9 0	0 9 2	1 4 7	1 3 0	1 2 0	1 1 7
Candles	lb.	5 5	0 6 5	0 6 5	0 8 0	1 1 0	0 11 7	0 10 4	0 10 5
Soap	"	0 2 5	0 3 0	0 3 3	0 3 4	0 5 0	0 5 4	0 5 2	0 5 5
Potatoes	14lb.	0 11 3	1 0 2	1 0 8	1 6 5	1 4 5	3 1 4	3 6 2	1 10 1
Onions	lb.	0 1 4	0 0 7	0 1 3	0 1 1	0 1 5	0 4 1	0 3 1	0 2 2
Kerosene	gal.	0 10 1	0 11 1	1 0 2	1 6 7	2 10 9	1 11 5	1 11 3	1 10 5
Milk	quart	0 4 0	0 4 4	0 5 2	0 5 8	0 8 1	0 8 6	0 9 0	0 8 4
Butter	lb.	1 0 2	1 1 7	1 1 8	1 5 3	2 0 7	2 0 1	2 0 7	1 9 4
Cheese	"	0 7 5	0 8 7	0 9 5	1 0 1	1 3 9	1 4 1	1 4 2	1 2 5
Eggs, Fresh	doz.	1 3 0	1 3 5	1 5 1	1 6 4	2 6 5	2 2 1	2 1 1	1 11 7
Bacon, Middle Cut	lb.	0 9 0	0 10 5	1 0 7	1 4 5	1 10 9	1 7 6	1 7 7	1 6 2
Shoulder	"	0 6 5	0 7 0	0 8 7	1 0 4	1 4 5	1 0 4	1 0 7	0 11 5
Ham	"	0 11 0	1 1 0	1 2 0	1 5 5	2 0 9	2 0 0	1 11 5	1 9 7
Beef, Sirloin	"	0 4 5	0 4 5	0 5 0	0 11 1	0 9 1	0 9 3	0 11 3	0 11 3
Ribs	"	0 3 8	0 3 8	0 4 5	0 9 5	0 6 7	0 6 8	0 8 6	0 8 6
Gravy	"	0 3 0	0 3 0	0 3 5	0 7 6	0 4 8	0 4 1	0 6 2	0 6 4
Steak, Rump	"	0 7 0	0 7 0	0 7 9	1 1 8	1 2 0	1 1 8	1 4 0	1 4 3
Shoulder	"	0 3 5	0 3 5	0 3 5	0 8 5	0 6 9	0 6 1	0 8 2	0 8 7
Beef, Corried Round	"	0 4 0	0 4 0	0 4 4	0 9 6	0 8 1	0 7 1	0 8 6	0 9 0
Mutton, Leg	"	0 3 2	0 3 0	0 3 3	0 7 8	0 6 9	0 7 6	0 8 4	0 7 6
Shoulder	"	0 2 8	0 2 5	0 3 1	0 6 7	0 5 2	0 6 0	0 6 3	0 5 8
Loin	"	0 3 8	0 3 8	0 4 0	0 7 9	0 7 6	0 8 9	0 9 8	0 9 0
Neck	"	0 3 2	0 3 0	0 3 5	0 7 0	0 5 4	0 6 0	0 6 3	0 4 3
Chops, Loin	"	0 4 2	0 4 0	0 4 7	0 9 0	0 8 6	0 9 9	0 11 0	0 10 3
Leg	"	0 3 8	0 3 8	0 4 7	0 8 6	0 8 1	0 9 2	0 9 8	0 9 2
Neck	"	0 3 2	0 3 0	0 4 0	0 7 3	0 6 4	0 7 2	0 7 8	0 7 3
Pork, Leg	"	0 6 2	0 7 8	0 8 5	1 0 1	1 3 4	1 1 1	1 2 6	1 2 1
Chops	"	0 6 8	0 8 5	0 9 0	1 0 1	1 5 8	1 2 2	1 3 2	1 2 3

In 1929 potatoes were unusually dear, meat, butter and cheese were dearer than in 1928, but nearly all the other items in the list were cheaper and declined further in the following year.

HOUSE RENTS.

Rents vary considerably according to locality. Position, class of building, proximity and means of speedy transport to the city are important factors also in respect of rents in the suburbs. The average amount of

rent paid by tenants of various types of houses in Sydney and suburbs in 1901 and later years is shown below. The figures represent the average predominant rents per week paid for each class of houses up to the year 1925 inclusive, and those for later periods are actual averages.

Year.	Under Four Rooms.	Four Rooms.	Five Rooms.	Six Rooms.	Seven Rooms.	Over Seven Rooms.	Weighted Average.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1901	9 0	11 1	13 7	15 4	19 1	22 2	13 5
1906	9 2	11 7	14 0	16 9	19 1	22 6	13 11
1911	11 4	14 5	17 1	20 2	23 3	26 10	17 0
1916	12 3	14 8	17 11	20 6	24 6	29 8	18 11
1921	14 2	18 5	21 7	25 2	29 7	35 9	23 0
1924	15 8	20 2	24 10	29 10	34 7	40 5	26 4
1925	16 2	20 10	25 9	30 7	35 4	40 8	27 0
1926	15 4	21 0	25 6	33 6	36 9	47 6	28 4
1927	15 3	20 9	25 3	32 7	37 4	49 5	28 3
1928	15 3	21 2	26 9	32 2	36 5	53 6	29 0
1929	15 10	21 4	26 11	32 8	37 0	52 10	29 3
1930	15 10	21 11	28 0	31 7	36 9	46 6	28 9

Note.—Kitchen is included as a room.

Between 1901 and 1916 weekly rents in Sydney and suburbs increased by 5s. 6d., or 41 per cent. During the post-war period there was an active demand for houses, and the supply being inadequate, the average rental increased steadily. In 1921 it was 4s. 1d. higher than in 1916, then it increased steadily until the average for 1925 showed a further addition of 4s. per week. The averages shown for 1926 and later periods, being actual averages, are not strictly comparable with those for earlier years, which are the average predominant rents. In the year 1927 there was only a slight change in the general weighted average, then it moved to a higher level, the average in 1929 being 1s. per week higher than in 1927. During the following year the rents of all classes of houses declined and the average in December quarter was 27s. 8d. as compared with 29s. 6d. in March quarter.

Cost of Building.

The increased cost of building has been an important factor in causing the upward movement in house rents. The extent of the increase is indicated in the following comparison which shows the estimated cost of building in Sydney and suburbs in various years, a plain brick cottage with 4 rooms, kitchen, bathroom, pantry, and back and front verandahs, complete with bath, laundry fittings, gas stove, fencing, water and sewerage. The cost of the land has not been included and no allowance has been made for the builder's profit or other expenses, e.g., insurance. The comparison is based

on the assumption that the quantity of materials and of labour was equal in each year, and that wages were paid according to industrial awards or agreements, and no regard is paid to changes in materials used or style of building erected. The estimates for 1920 and earlier years are based on the prices and rates ruling in the months of July, and the figures for later years relate to the month of June.

Year.	Cost of—			Proportion of Total Cost.		Index-number of Cost. 1911 = 1,000.		
	Materials.	Labour.	Total.	Materials.	Labour.	Materials.	Labour.	Total.
	£	£	£	per cent.	per cent.			
1901	181	100	281	64	36	797	833	810
1911	227	120	347	65	35	1000	1000	1000
1914	255	133	388	66	34	1123	1108	1118
1920	433	221	704	69	31	2123	1842	2029
1921	482	225	707	68	32	2123	1875	2037
1925	435	218	653	67	33	1916	1817	1882
1926	431	228	659	65	35	1899	1900	1899
1927	444	242	686	65	35	1956	2017	1977
1928	438	239	677	65	35	1930	1992	1951
1929	437	240	677	65	35	1925	2000	1951
1930	429	241	670	64	36	1890	2008	1931

Between 1901 and 1911 there was an increase of 23 per cent. in the cost of building, with a further rise of 12 per cent. during the succeeding three years. In 1921 the cost was 82 per cent. above pre-war level, then a decrease occurred. In each of the years 1925 to 1927 there was a slight rise, and in the last three years the price was somewhat lower than in 1927. As compared with pre-war level the cost in June, 1930, was 73 per cent. higher, materials being 68 per cent. dearer and labour 81 per cent. dearer.

Particulars are given in the chapter relating to Social Condition concerning the number of new buildings erected and arrangements for assisting people to build dwellings.

Fair Rents Act.

In view of a continuous rise in the rents of private dwellings which had persisted for some years prior to the war, the Fair Rents Act was passed in 1915 to provide a measure of regulation with the object of preventing undue increases in this important item of family expenditure. It is administered by Fair Rents Courts, each consisting of a stipendiary or police magistrate, and application for the review of the rental of a dwelling may be made by the lessor or by the lessee. The Act was amended in 1920, in 1926, and in 1928. It is to cease to have effect on 1st July, 1933.

The Principal Act provided for the determination of rents for dwellings leased at a rent not exceeding £3 per week; the amending Act of 1926 extended its provisions to rents of retail shops and of buildings, which were partly shops and partly dwellings, let at a rental not exceeding £6 per week; the amendment of 1928 limited future operations under the Act to dwellings

erected at the date it was passed, viz., 9th November, 1928, and exempted from the jurisdiction of the Court all shops, premises of which part is used as a shop, boarding-houses, flats, and residential chambers, premises of farms, orchards, grazing areas, etc., also dwelling-houses occupied with more than half an acre of land. The Act does not apply to premises licensed for the sale of spirituous liquors nor to houses ordinarily leased for summer residence.

In accordance with the provisions of the Act prior to the amendment of 1928 the fair rent was fixed on the basis of the capital value at a rate not lower, nor more than $2\frac{1}{2}$ per cent. higher, than the rates charged on overdrafts by the Commonwealth Bank of Australia, plus rates, repairs, maintenance, insurance, and depreciation. The capital value was the unimproved capital value of the land plus the estimated cost of erection as at the date of the application, less a fair sum for depreciation.

It was prescribed, however, that, excepting where circumstances were proved which rendered an increase equitable, the fair rent might not exceed the rent which was charged for the dwelling on 1st January, 1915, and in respect of dwellings leased at that date the Court allowed only such increases as were necessary to cover increases in respect of rates, repairs, etc. This provision of the Act was applied also to any building, which was partly shop and partly dwelling, let to one tenant, if it was so leased on 1st January, 1915, but other shops were exempt from its operation.

The last-mentioned provision of the Act was repealed in 1928, and the basis of valuation was altered so that the fair rent is determined now on the market value of the house and land therewith as at the date of the application, and on the basis of a rate at least $1\frac{1}{2}$ per cent. above the Commonwealth Bank rate for overdrafts.

It had been the practice of the Court to use a rate of $6\frac{1}{2}$ per cent. of the capital value in determining the fair rent, until the beginning of the year 1925, when the rate was increased to $7\frac{1}{2}$ per cent. From 1st July, 1925, to 9th November, 1928, the rate of 7 per cent. was used in nearly all the cases, and since the amending Act came into operation the rate has been 8 per cent. of the market value.

The determinations of the Court remain in force for a period of twelve months notwithstanding change of ownership or tenancy. During the pendency of an application or while the determination is in force the lessor may not terminate the lease without reasonable cause if the lessee has performed the conditions of his lease.

Fair Rents Court.

The first sitting of the Fair Rents Court in Sydney was held on the 13th March, 1916, and the provisions of the Act were extended to country districts on 16th August, 1920. The records show interesting particulars relating to dwellings and rentals, but for several reasons the information cannot be regarded as a satisfactory basis for conclusions as to the effect of the Fair Rents Act upon house rents. For instance, in cases where the tenant applies promptly upon receiving notice of the landlord's intention to increase the rent, the "fair rent" as determined by the Court may be recorded as an increase on the rent at date of application, whereas it is a reduction in comparison with the proposed increased rental against which the action was directed.

The applications dealt with in the Metropolitan district from the inception of the Court to 31st March, 1930, numbered 12,026, of which 4,887 were withdrawn or struck out, and in 7,139 cases the rentals were fixed. The

cases in 1929-30 numbered 163, of which 68 were withdrawn or struck out. In the country districts the number of cases was comparatively small. Only 551 were concluded between August, 1920, and 31st December, 1929. Of these 268 were withdrawn or dismissed, and in 47 cases the rent was fixed as at date of application, in 124 it was reduced, in 112 it was increased.

The determinations of the Metropolitan Court in respect of cases in which the rentals were fixed during the year 1929-30, and during the period of fourteen years since the commencement of its operations, are summarised in the following table:—

Rent (at date of Application).	Year ended 31st March, 1930.				Total to 31st March, 1930.			
	Fixed as at date of Application.	Increased.	Reduced.	Total.	Fixed as at date of Application.	Increased.	Reduced.	Total.
10s. and under ...	...	...	...	...	16	33	17	66
10s. 6d. to 12s. 6d. ...	...	1	...	1	41	79	95	215
13s. to 15s. ...	...	4	1	5	192	260	280	662
15s. 6d. to 17s. 6d. ...	...	5	...	5	118	311	299	728
18s. to 20s. ...	3	13	2	18	162	365	446	973
20s. 6d. to 25s. ...	3	14	8	25	221	470	857	1,548
25s. 6d. to 30s. ...	1	10	12	23	123	333	754	1,215
30s. 6d. to 40s. ...	2	3	9	14	87	197	751	1,035
40s. 6d. to 50s. ...	1	...	2	3	33	65	335	433
50s. 6d. to 60s. ...	...	1	...	1	6	8	138	152
Over 60s. ...	...	...	...	...	2	8	102	112
Total ..	10	51	34	95	936	2,129	4,074	7,139

During 1929-30 the Court determined the rents of 95 dwellings. In 10 cases the rentals were fixed as at the date of application to the Court; the rentals of 51 were increased, and 34 were reduced.

The amount of reduction and of increase in the rentals in the Metropolitan district during the year 1929-30 is shown in the following statement:—

Amount of Reduction, or of Increase.	Rents Increased.	Rents Reduced.	Amount of Reduction, or of Increase.	Rents Increased.	Rents Reduced.
6d.	3	...	5s. and under 6s.	7	7
1s. and under 1s. 6d.	3	4	6s. „ 7s. 6d.	1	7
1s. 6d. „ 2s.	...	3	7s. 6d. „ 10s.	2	4
2s. „ 2s. 6d.	4	2	10s. „ 12s. 6d.	5	...
2s. 6d. „ 3s.	8	4			
3s. „ 4s.	12	1	Total ..	51	34
4s. „ 5s.	6	2			

In the cases relating to dwellings the reductions during 1929-30 amounted to a sum of £7 10s. per week which represents an average of 15.2 per cent., or 4s. 5d. per house per week. In 51 cases the rents were increased, the total increases amounting to £10 10s. 6d. per week, equal to 18.1 per cent., or 4s. 2d. per house. The weekly rents of dwellings reviewed by the Court during 1929-30 amounted in the aggregate to a sum of £121 3s. 6d., or 25s. 6d. per house per week, and the result of the decisions was a net increase of £3 0s. 6d. or 8d. per house per week.

A brief review of the decisions of the Metropolitan Fair Rents Court in each year since its inception in March, 1916, is shown below:—

Year ended March.	Rentals fixed by Court.				Aggregate weekly rents (as at date of application)	Net Reduction.	
	As at date of applica- tion.	Increased.	Reduced.	Total.		Amount per week.	Per cent.
1917	137	7	294	438	£ 419	£ 34	8.1
1918	49	19	102	170	161	8	5.0
1919	36	132	65	233	233	+9	+3.9
1920	47	254	141	442	464	+13	+2.8
1921	52	256	187	495	572	+9	+1.6
1922	75	237	245	557	704	22	3.1
1923	64	150	233	447	560	30	5.4
1924	75	132	288	501	641	65	10.1
1925	63	185	317	565	725	60	8.2
1926	62	105	412	579	869	148	17.1
1927	53	154	1,020	1,232	1,973	379	19.2
1928	115	212	578	905	1,357	207	15.3
1929	93	229	153	480	660	16	2.4
1930	10	51	34	95	124	+3	+2.5
Total ...	936	2,129	4,074	7,139	9,462	935	9.9

+ Denotes net increase.

Since 1916 the Metropolitan Court has fixed the rentals of 7,139 premises, of which the average weekly rent was 26s. 6d., and the net result of its decisions has been an average reduction of 2s. 7d. per house.

RETAIL PRICE INDEX NUMBERS—FOOD AND RENT.

The retail price index numbers of food and groceries are based upon the retail prices of forty commodities in every-day use, which are shown in the table on page 714, the prices being weighted according to the average annual consumption in the years 1906-10. The index numbers of rent refer to the weighted average rental of all houses as shown on page 715.

These index numbers should not be used as a complete measure of variations in the cost of living. They were compiled with the primary object of showing the general movement of the retail prices of food and of rent, and do not cover other items of family expenditure. Moreover, they are only approximations indicating the general movement and not an exact scale of price-levels. As was noted in reference to wholesale prices, there is a probability that the rise or fall of the index numbers (especially those for recent years) may differ in an appreciable degree from the actual increase or decrease in the expenditure on food and groceries. This is due to the fact that the weights have been constant throughout the period covered by the index numbers and they refer to a regimen in vogue about twenty years ago. Steps are being taken to revise the regimen. A comparison of the cost of food in 1914 and in 1929 calculated according to the average consumption in each year, is shown on page 723.

The retail price index numbers of food and rent in Sydney in each year from 1864 to 1911 were published in the 1920 issue of the Year Book. The following table shows the index numbers of food and groceries, and of rent,

and of food and groceries and rent combined in various years since 1901, and in each quarter of the last two years. It should be read subject to the remarks above.

Year.	Index Numbers (1911=1000).			Amount required in each period to purchase the same quantities of Food and Housing as would have cost, on the average, 20s. in 1911.
	Food and Groceries.	Rent.	Food and Groceries and Rent Combined.	
1901	896	789	848	s. d. 17 0
1906	967	819	901	18 0
1911	1000	1000	1000	20 0
1916	1536	1111	1351	27 0
1920	2171	1297	1791	35 10
1921	1919	1351	1672	33 5
1922	1721	1409	1586	31 9
1923	1840	1483	1685	33 8
1924	1751	1546	1662	33 3
1925	1804	1586	1709	34 2
1926	1886	1664	1790	35 10
1927	1865	1659	1776	35 6
1928	1845	1703	1783	35 8
1929	1969	1715	1859	37 2
1930	1777	1687	1738	34 9
1929—March quarter...	1974	1708	1858	37 2
June " ...	1954	1711	1848	37 0
Sept. " ...	1962	1718	1856	37 2
Dec. " ...	1986	1722	1871	37 5
1930—March quarter...	1843	1732	1795	35 11
June " ...	1827	1729	1781	35 8
Sept. " ...	1766	1669	1724	34 6
Dec. " ...	1674	1625	1653	33 1

The great bulk of the food commodities is produced in the Commonwealth and prices are affected largely by seasonal conditions. The index number of Sydney prices of food reached the highest point of the period in 1920 under the combined influence of special factors arising from the war and of an unfavourable season. From this peak there was a fairly rapid decline, then the index number began to rise again and in the three years 1926 to 1928 it was from 85 to 90 per cent. higher than in the base year 1911. A pronounced rise took place early in the year 1929, and the index numbers throughout the year were higher than in any year since 1920. In 1930 the index number was nearly 10 per cent. lower than in the preceding year.

Rents increased slowly after 1920, and reached the highest level in March quarter, 1930. It is probable, however, that an increase of 5 per cent. recorded in 1926 was a result of a change in the method of collecting data as to rents which was made by the Commonwealth Statistician at the beginning of that year. Agents supplying quarterly returns were asked to quote the actual average rent of the houses of each class instead of the average predominant rental as in former years.

From 1922 to 1929 the general trend of the index number of food and rent combined was upward. In 1926 the combined index number was practically the same as in 1920, 79 per cent. higher than in 1911, and 53 per cent. higher than in 1914. In 1927 and 1928 it did not vary greatly. In 1929 there was an increase of 4 per cent., and in the last quarter the index number was almost as high as in September, 1920. During 1930 there was a decline of $6\frac{1}{2}$ per cent.

Comparison with other Countries.

The following statement shows the increases since July, 1914, in the retail prices of the principal articles of food in other countries. The figures for the oversea countries have been taken from the "London Labour Gazette" and other official sources; those relating to France and to Sweden include fuel and lighting. The particulars for the Australian States relate to the capital cities:—

Country.	Percentage Increases in Retail Food Prices since July, 1914.						
	July, 1925.	July, 1926.	July, 1927.	July, 1928.	July, 1929.	July, 1930.	Dec., 1930.
New South Wales	56	62	53	58	66	54	42
Victoria	62	62	57	51	62	50	36
Queensland	64	71	55	57	58	43	31
South Australia	49	51	48	44	54	34	20
Western Australia	46	42	33	46	45	32	14
Tasmania	49	55	48	42	50	42	30
Australia	57	60	53	53	61	48	34
New Zealand	51	49	44	46	46	43	37
South Africa	20	16	19	16	16	9	8
United States	56	54	50	50	55	41	35
Canada	41	49	49	47	50	49	33
United Kingdom	67	61	59	65	49	41	41
Denmark	110	59	53	53	49	37	26
Sweden	69	56	51	57	51	40	34
Norway	160	98	75	73	57	51	47
Italy (Milan)	502	554	424	416	458	407	382
France (Paris)	321	474	457	447	506	501	540

The price level of food commodities in New South Wales in recent months has been higher in comparison with July, 1914, than in the other Australian States. The index numbers shown above may not be used for exact comparisons between countries owing to differences in the scope of the data, and in methods of compilation.

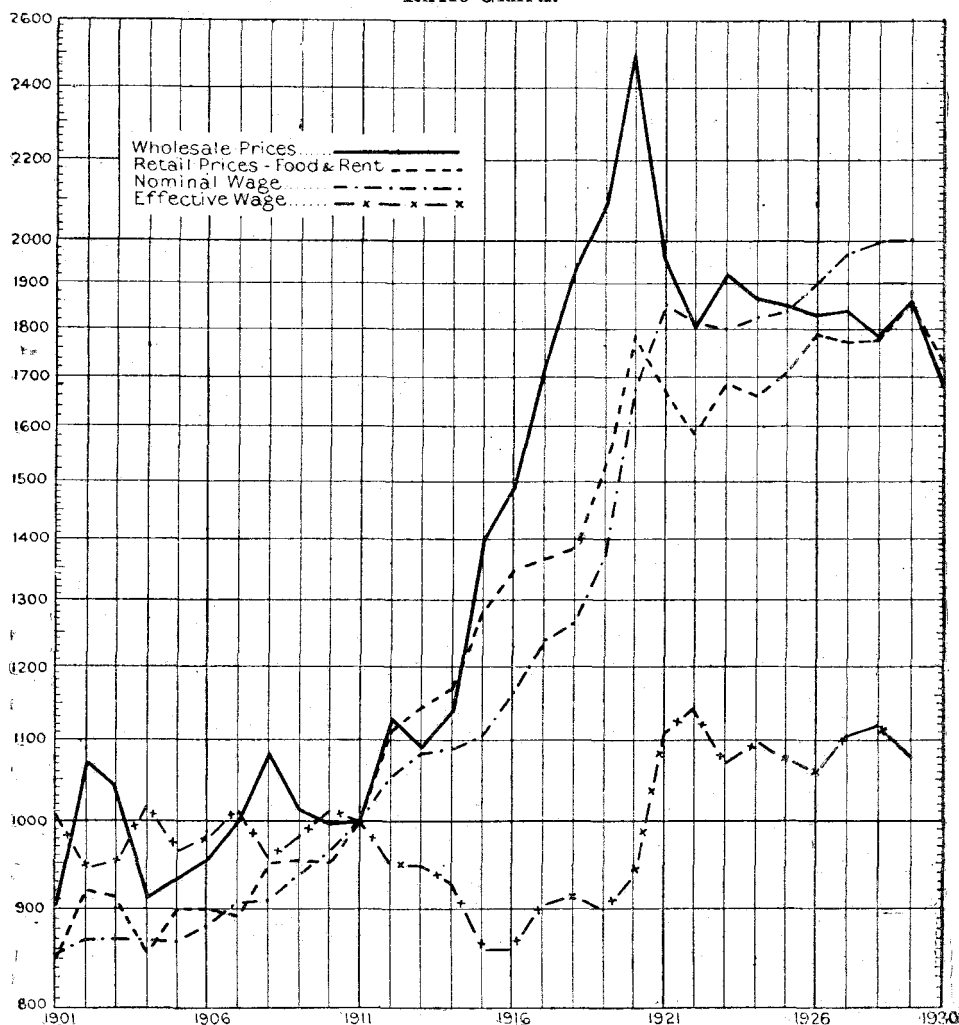
WHOLESALE AND RETAIL PRICES—INDEX NUMBERS COMPARED.

A comparison of the index numbers of wholesale and retail prices as published in this chapter shows that after 1914 the wholesale price index numbers rose to a level far above that of the retail price index numbers. This is due mainly to the fact that the former are based on the prices of a wide range of commodities while the latter relate only to food and groceries and housing. The prices of food and groceries did not increase as much as those of many other groups of commodities. Moreover the inclusion of rent in compiling the retail price index numbers kept them at the lower level as the rents of existing houses did not advance to the same extent as prices of materials for building new dwellings. Thus in 1920, when wholesale prices were at the peak, building materials were 142 per cent. dearer, and rents were less than 40 per cent. higher, than in 1911.

A comparison of the annual index numbers of wholesale and retail prices is shown in the graph on this page.

INDEX NUMBERS—PRICES AND WAGES—SYDNEY, 1901 to 1930.

RATIO GRAPH.



The numbers at the side of the graph represent the index numbers of prices and of wages with the year 1911 as a base = 1000.

The diagram is a ratio graph. The vertical scale is logarithmic and each curve rises and falls according to the rate of increase or decrease. In this it differs from the natural scale graph in which the curves rise and fall according to the actual increase or decrease.

COST OF LIVING.

For the purpose of measuring the extent of variations in the cost of living it is usual to distribute the expenditure of a family into five main classes, viz., food and groceries, rent, fuel and light, clothing, and miscellaneous items, and, having ascertained the rise or fall in respect of each class, to weight the variation in each group for the purpose of calculating the increase or decrease in the general cost of living.

Cost of Food—Change in Regimen.

The index numbers on page 720 show the movement in the retail prices of food on the basis of a fixed regimen. It is recognised however that variations in the actual cost of food depend also upon changes in dietary, which is adjusted to meet changes in prices and in supplies. The combined effect upon the food bill of a family of five persons of changes in prices and in the consumption of the principal food commodities is illustrated in the following table. In calculating the cost, the average consumption per member of the family in 1929 is assumed to have been equivalent to the general average per head of population as shown on page 701, and corresponding figures have been used for the year 1914. An exception has been made in regard to flour and sugar, of which the quantities have been reduced to make allowance for the quantities included in bread, jam, etc.

Fruit and vegetables, except potatoes, have been excluded on account of the impossibility of obtaining prices which would be properly comparable, principally owing to seasonal variations and to the difficulty of estimating the consumption.

Article.	Unit of Quantity.	1914.			1929.		
		Weekly Consumption.	Average Price.	Weekly Cost.	Weekly Consumption.	Average Price.	Weekly Cost.
			d.	s. d.		d.	s. d.
Beef	lb.	12·8	5·3	5 7·8	11·2	9·6	8 11·5
Mutton	lb.	8·1	4·8	3 2·9	7·1	8·4	4 11·6
Pork	lb.	·3	10·3	3 1	·5	14·9	7 5
Bacon and Ham	lb.	·9	11·0	9 9	1·1	17·6	1 7·4
Fish—Fresh, etc.	lb.	·8	9·5	7 6	1·1	15·0	1 4·5
„ Preserved	lb.	·4	10·5	4 2	·4	18·0	7 2
Potatoes	lb.	14·4	·9	1 1 0	10·6	3 0	2 7·8
Flour	lb.	4 0	1 4	5 6	4 0	2 1	8 4
Bread	2lb. loaf	10 0	3 5	2 11 0	9 6	5 7	4 6 7
Rice	lb.	·6	3 0	1 8	·4	3 7	1 5
Sago and Tapioca	lb.	·2	2 7	·5	·1	3 4	·3
Oatmeal	lb.	·5	2 6	1 3	·5	4 1	2 1
Sugar	lb.	6 0	2 7	1 4 2	6 0	4 6	2 3 6
Jam	lb.	1 6	5 0	8 0	1 1	6 9	7 6
Butter	lb.	2 9	14 2	3 5 2	3 3	24 7	6 9 5
Cheese	lb.	·3	10 6	3 2	·4	16 2	6 5
Milk—Fresh	qt.	7 7	5 3	3 4 8	8 1	9 0	6 0 9
Tea	lb.	·7	15 8	11 1	·7	26 1	1 6 3
Coffee	oz.	1 3	1 1	1 4	1 1	1 6	1 8
Total ... ..		...	...	25 10 6	...	...	44 4 7

The weekly expenditure on the commodities enumerated rose from 25s. 10½d. in 1914 to 44s. 5d. in 1929—an increase of 71·5 per cent. The meat bill increased from 9s. 11½d. to 16s. 2d., while the expenditure on milk and butter rose from 6s. 10d. to 12s. 10½d.

Taking rent into consideration—the average being 20s. in 1914 and 29s. 3d. in 1929—the total weekly expenditure was approximately 46s. as compared with 73s. 6d., and the increase per week during the period amounted to 27s. 6d., which represents 60 per cent.

An interesting comparison may be made between the increase in the household expenditure on food calculated on the basis of the average consumption of the various commodities in each year, and the increase in the prices of food as indicated by the index numbers which are computed on the basis of a fixed regimen, as those shown in the table on page 720. In 1920—the year in which prices reached the peak—the average consumption of the commodities enumerated above decreased and the average expenditure was only

65 per cent. greater than in 1914, though the general level of food prices was 86 per cent. higher. In 1929, on the other hand, the increase in the average expenditure on food was 71 per cent. over that of 1914, and the increase in the retail price index number was 68 per cent.

Cost of Clothing.

The measurement of changes in the cost of clothing presents such great difficulty that this item is frequently omitted from official investigations and it is often assumed that variations in the general cost of living may be determined with a reasonable degree of accuracy by the measurement of the groups, food and housing. The chief difficulty in regard to the clothing group lies in the determination of standards owing to the vast range of articles of clothing, numerous grades of quality, and rapid changes in fashion and design. The group is, however, of such importance that in 1921 arrangements were made with a number of large retail firms in Sydney to supply particulars showing the movement of the prices of clothing since the beginning of the war period. It was not considered practicable to attempt to collect data concerning articles of the same quality nor even of the same material, and the firms were asked to quote the price as in January and in July of each year of each item of the quality usually purchased by persons of moderate means.

In order to form a price-index to indicate the general trend of the cost of clothing, budgets were prepared from the price lists to represent the annual replacements for a man, a woman, and three children, the replacements of the various articles being approximate to those in the indicator list used by the Australian Basic Wage Commission in 1920.

The method of compiling a price index on the basis of the predominant price paid at various dates by a certain section of the people, viz., those with moderate incomes, does not preserve an identity of standard but involves to some extent changes in quality. In normal times the standard of clothing used by any section of the community, e.g., unskilled workers, changes very slowly and would not vary appreciably within a decade. The period under review, however, was characterised by violent changes, social and economic, which were reflected in every phase of national life. In the earlier years of the war prices of food rose much more rapidly than wages, thus necessitating economy, which would naturally be reflected in the matter of clothing more readily than in the food group. Subsequently as wages increased it is reasonable to suppose that a higher standard of clothing became general amongst the majority of the population.

Cost of Fuel and Miscellaneous Expenses.

The cost of fuel and light forms the smallest of the groups of family expenditure, but substantial increases which have occurred since 1914 have had an appreciable effect upon the cost of living.

The index numbers of this group are based on the prices of gas, coal and firewood. Kerosene is included in the list of food and groceries, and the average retail prices are shown on page 714.

The price of gas for household use in Sydney was increased from 5s. 4d. per 1,000 cubic feet to 5s. 7d. on 19th January, 1926, to 5s. 8d. on 17th July, 1926, and to 5s. 9d. on 6th August, 1927.

Large coal was about 90 per cent. dearer in 1929 than in 1914, having risen from 24s. 6d. per ton to 47s. 3d. In 1930 the price was reduced to 44s. Firewood increased in price from 28s. per ton in July, 1914, to 43s. 6d. in 1929.

Almost all the items of miscellaneous expenditure have become dearer; for instance, fares by train, tram, and ferry, which are an important factor. General increases amounting to about 66 per cent. were made in railway fares between July, 1914, and November, 1920. A reduction was made in May, 1924, when the decreases in second-class suburban fares up to 34 miles ranged from 3 to 11 per cent. and at the end of 1927 there was a general increase of about 7 per cent.

Tram fares were charged at the rate of 1d. per section up to 31st March, 1914. On 6th November, 1920, the fares were fixed at the following rates:—One section 2d., two sections 3d., three sections 4d., four sections 5d., five and six sections 6d. In December, 1927, the fares for two, three and four sections were raised by 1d. Since December, 1930, lower fares have been charged for journeys of more than one section between the hours 10 a.m. and 4 p.m., viz., two sections 3d., three sections and over 4d.

Increases have been made also in the fares on the majority of Sydney Harbour ferry routes. For instance, the monthly season ticket rate from Circular Quay to Milson's Point, which was 4s. 9d. in July, 1914, was increased to 8s. in 1928.

The prices of the daily newspapers which had been raised during 1919 and 1920 reverted to the former charge of 1d. per copy at the beginning of July, 1922, and were increased again to 1½d. on 4th August, 1930. For postage the rate for letters, 1d per ½ oz. in 1914 and 1½d. per oz. in 1926, was raised to 2d. per oz. in August, 1930. Fees for telephone calls were increased during the period from ½d. to 1½d. per call made by a subscriber, and from 1d. to 2d. per call on public telephones. Increases ranging up to 50 per cent. were made in the charges for telegrams.

Contributions to friendly societies amounted on an average to about 1s. 3d. per week in 1914 and to 1s. 7½d. in 1929. Subscriptions to trade unions, which range from 6d. to 1s. per week, have remained constant.

The retail price of tobacco has increased by 75 per cent. between 1914 and 1929. The average price of plug tobacco of popular brand was 10s. 6d. per lb. in 1929 as compared with 6s. in 1914. Successive increases occurred between December, 1929, and November, 1930, bringing the average to 14s. per lb.

Changes in the Cost of Living.

A fair indication of the changes in the total cost of living may be obtained by summarising the index numbers of the cost of the various items discussed above, assigning to each group a weight in accordance with the ratio its cost bears to the total family expenditure.

The ratio varies in accordance with the amount of income, the expenditure on the primal necessities of food and shelter being proportionately greater when the income is small. As, however, the question of the cost of living is studied largely in relation to wages and the standard of living in respect of persons of moderate means, it is customary to consider the ratio of the component groups of expenditure on a basis of the wage of an unskilled worker.

In New South Wales a standard distribution on this basis may be obtained from the living wage determinations of the industrial tribunals which are described in the chapter of this volume relating to wages.

A living wage determination made by the Board of Trade of New South Wales in 1919 showed the following proportions, viz., food and groceries, 41 per cent.; rent, 20 per cent.; fuel and light, 4 per cent.; clothing, 13 per cent.; and miscellaneous, 17 per cent. The standard adopted by the

Commonwealth Basic Wage Commission in 1920 was somewhat similar, viz., food and groceries, 40 per cent.; rent, 19 per cent.; fuel and light, 4 per cent.; clothing, 23 per cent.; miscellaneous, 14 per cent. By taking an approximate mean of these two sets of ratios the following weights have been deduced for use in assessing the changes in the general cost of living since 1914 as shown in the table below:—Food and groceries 41, rent 20, clothing 20, fuel and light 4, miscellaneous items 15. The results are not an exact measure of the changes, and they are put forward only as indicating approximately the movement in the general cost of living.

Year.	Food and Groceries.	Rent.	Clothing.	Fuel and Light.	Miscellaneous Items.	General Increase in Cost of Living since 1914.
1914	100	100	100	100	100	..
1926	161	142	160	170	135	about 55 per cent.
1927	160	141	160	175	135	.. 55 ..
1928	158	145	165	180	135	.. 55 ..
1929	169	146	165	175	135	.. 60 ..
1930	152	144	160	170	145	.. 50 ..

The cost of living rose by about 30 per cent. during the war period, then increased to a greater extent during the two years 1919 and 1920, after the armistice was declared. In each of the two following years there was a decline, then it remained fairly constant until 1926, when increases in food, rent, and fuel caused it to rise again. The high prices of certain food commodities caused a further rise in 1929, but in the following year there were reductions in all the groups except miscellaneous items.

EMPLOYMENT AND PRODUCTION.

EMPLOYMENT.

Information regarding the occupations of the people is obtained only at the Census, and statistics relating to the periods between the Census dates are restricted mainly to certain classes of employment in the primary industries and in manufacturing establishments.

The results of the last Census indicate that in April, 1921, out of a total population of 2,100,371, the breadwinners numbered 884,104, of whom 713,169, or 81 per cent., were males. Particulars regarding their occupations were published in previous issues of the "Year Book."

Returns relating to the number of persons employed in the principal rural industries of the State are collected annually, but the information is not comparable with the census figures, because it relates only to persons engaged regularly on rural holdings of one acre or over. It includes occupiers and managers and members of their families, who work constantly on a holding, but temporary hands and contract workers engaged for harvesting, shearing, etc., are omitted. Moreover, the census figures relate to a specific date, and the workers are distributed amongst the several branches of rural industry according to the work on which they were engaged at the time. On the other hand, the annual records show the average number employed during the period, and those engaged on each of the numerous holdings where more than one class of rural production is undertaken are distributed according to the main purpose for which the holding was used.

In regard to the number of females employed in rural industries, considerable difficulty is experienced in obtaining satisfactory statistics, owing to the fact that a large number of women and girls, especially on dairy farms, are employed only partly in rural production in conjunction with their domestic duties. Usually they do not receive wages, and at a census they are classified as dependents. In the annual returns there is a tendency to include them as rural workers, consequently a wide discrepancy arises between the census and the annual records, the latter being overstated.

The following statement shows the number of persons engaged in the various branches of rural industry in various years since 1911:—

Year.	Agriculture, Poultry, Pig, and Bee-farming.		Dairying.		Pastoral.		Total, Rural Industries.		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1911	58,299	1,141	27,488	11,293	43,387	770	129,174	13,204	142,378
1920-21	50,162	1,509	26,648	13,176	43,766	1,022	120,576	15,707	136,283
1925-26	44,991	841	30,351	15,027	45,652	420	120,994	16,288	137,282
1926-27	43,268	863	29,106	12,525	47,546	854	119,920	14,245	134,165
1927-28	43,953	713	29,845	12,378	46,882	453	120,680	13,544	134,224
1928-29	40,058	606	30,997	9,765	46,808	306	117,863	10,677	128,540
1929-30	39,860	472	32,494	9,105	44,069	271	116,423	9,848	126,271

The number of workers engaged in cultivating, etc., has declined since 1911, though the area under cultivation has increased, the greater use of machinery and the substitution of motor for horse drawn vehicles having lessened the need for workers in agriculture. It is probable also that the decrease in the labour engaged permanently has been offset, to some extent, by the employment of contract workers. Details regarding the labour engaged in relation to machinery used in cultivating are shown in the chapter relating to agriculture.

The number of male dairy workers has increased appreciably since 1911. In the pastoral industry the number of permanent employees does not usually vary greatly from year to year, except in very dry seasons, when additional labour is required to tend the flocks and herds under severe drought conditions. On the whole, the number of men engaged permanently on rural holdings in 1928-29 was 6 per cent. less than the average of the three years prior to the war. The figures in the table indicate that there has been a marked decrease in the number of women engaged in rural work, but this may be attributed mainly to the exclusion from the returns in recent years of women whose chief occupation is domestic rather than rural. For instance, in 1928-29, when there was a decrease of 2,867 women, the number of paid workers declined by 100 only, while the decrease in the group consisting of relatives not receiving wages was 2,366, in working proprietors, 401.

The total number of rural workers in 1928-29 included 66,134 men and 914 women, who were classed as working proprietors, *i.e.*, owners, lessees, or share-farmers working on the holdings; 17,495 men and 9,007 women were classed as relatives employed constantly, but not receiving wages; and 34,234 men and 756 women, including managers and relatives, were receiving wages.

Annual returns relating to employment are collected also in respect of mining and other primary industries and the manufacturing industries, and the figures for various years since 1911 are summarised in the following statement. The particulars for 1920-21 and subsequent years relate to the twelve months ended 30th June, except those showing the employment in mines, which are for the calendar years ended six months later. In regard to the manufacturing industries, employees in establishments with fewer than four persons have not been included unless machinery was used in the factory:—

Year.	Rural Industries.	Forests, Fisheries, and Trapping.	Mining.	Manufacturing.			Total.		
	Total.	Males.	Males.	Males.	Females.	Total.	Males.	Females.	Total.
1911	142,378	6,000	33,367	82,083	26,541	108,624	250,624	39,745	290,369
1920-21	136,283	6,700	26,062	112,187	32,824	145,011	265,525	48,531	314,056
1925-26	137,282	7,900	30,429	132,239	41,862	174,101	291,562	58,150	349,712
1926-27	134,165	8,500	30,549	138,309	44,884	183,193	297,278	59,129	356,407
1927-28	134,224	8,000	26,733	137,936	44,724	182,660	293,349	58,268	351,617
1928-29	123,540	7,700	27,683	139,104	46,038	185,142	292,350	56,715	349,065

Employees engaged in treating minerals at the place of production are included in the returns of the manufacturing industries, and not with the mining employees, *viz.*, those engaged in the manufacture of coke at coke works, in the manufacture of lime, cement, etc., at limestone quarries, and in the treatment of ores at mines. The number of miners, as stated for the 1920-21 and later years, includes fossickers, who numbered 1,121 in 1929. In view of the small output which they obtained, it is probable they were not wholly employed in fossicking.

In the coal and shale mines employment increased from 17,247 in 1911 to 18,534 in 1914, and a decline of about 2,000 occurred during the war period, when the export trade was restricted. Between 1921 and 1927 there was a steady increase in the number of coal-miners, 24,483 being employed in 1927. In the following year the number dropped to 21,743. The returns for 1929 show an increase to 22,470, but this figure is over-stated on account of duplication in respect of miners who moved from the

northern to the southern and western coal-fields when the northern mines were closed during a protracted industrial dislocation.

In other mines employees increased from 5,089 in 1921 to 6,304 in 1926, and have since declined to 5,213.

The number of factory workers did not vary greatly between 1926-27 and 1928-29, but preliminary figures indicate that a marked decline to 167,690 occurred in 1929-30. The majority of female factory workers are engaged in the clothing trades, and fluctuations in the number of female employees reflect generally the condition of that group of industries.

Government Employees.

In New South Wales a large number of persons are employed by the State and Commonwealth Governments. In addition to services such as education, police, justice, health, lands administration, and the construction of public works, etc., the State owns railways, tramways, and wharves, and engages in various industrial enterprises, *e.g.*, abattoirs, dock-yards, quarries, brick and pipe works. Thus a large number of persons are in constant employment. The Commonwealth services include posts, telegraphs and telephones, customs, taxation, and defence.

The following statement shows the number of Government employees, as at 30th June, 1930, including persons engaged in the various State and Federal departments and those under the jurisdiction of statutory bodies which administer the railway and tramway services, harbour works, water supply and sewerage systems, etc., also a large number of employees attached to various State departments, who are not under the jurisdiction of the Public Service Board, and the staffs of the State Savings Bank and of the Commonwealth Bank in New South Wales.

Services.	Permanent.		Temporary.		Total.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
State—							
Public Service Board—							
Teachers	4,920	5,583	62	615	4,982	6,198	11,180
Staffs of hospitals, etc. ...	1,000	921	151	504	1,151	1,425	2,576
Other	5,471	804	1,798	1,102	7,269	1,906	9,175
Total	11,391	7,308	2,011	2,221	13,402	9,529	22,931
Railways and Tramways ...	43,123	904	8,787	608	51,910	1,512	53,422
Sydney Harbour Trust ...	202	17	771	9	973	26	999
Water Supply and Sewerage —Metropolitan and Hun- ter District	1,845	47	2,291	59	4,136	106	4,242
Water Conservation and Irrigation Commission ...	317	30	766	29	1,083	59	1,142
Metropolitan Meat Industry Board	631	23	...	...	631	23	654
Main Roads Board	34	8	2,114	52	2,148	60	2,208
Police	3,730	12	8	...	3,738	12	3,750
Fire Commissioners... ..	811	36	...	...	811	36	847
Savings Bank	1,406	298	30	...	1,436	298	1,734
Government Dockyard ... ..	...	...	801	18	801	18	819
Other	202	56	6,822	871	7,024	927	7,951
Total	63,692	8,739	24,401	3,867	88,093	12,606	100,699
Commonwealth—							
Public Service Commission ..	9,292	1,228	2,738	683	12,030	1,911	13,941
Defence Department	151	2	1,243	38	1,394	40	1,434
Repatriation Department ...	125	40	159	111	284	151	435
Other	487	205	673	71	1,160	276	1,436
Total	10,055	1,475	4,813	903	14,868	2,378	17,246
Grand total	73,747	10,214	29,214	4,770	102,961	14,984	117,945

The figures in the table include the general labourers and navvies employed by the various public bodies. The wages staff of the railways and tramways numbered 46,501, of whom 4,830 were employed in the construction and duplication of lines; and 10,552 were employed on wages on water conservation, sewerage, and harbour works, main roads, etc.

The number of persons employed by the State Government was decreased by 10,255 during 1929-30. Moreover, work was "rationed" in some services, and with certain exceptions salaries were reduced by 8½ per cent. in July, 1930. The largest reductions in staff were:—Railways and Tramways 5,259, water conservation and sewerage 2,421, main roads 1,487, harbour works and dockyard 1,102. The employees under the jurisdiction of the Public Service Board, who include the teachers and hospital staffs, increased by 326, and the police and firemen by 200.

The number of Commonwealth Government employees in New South Wales also showed a reduction, which amounted to 639 persons, notwithstanding the inclusion in 1930 of 97 employees of the War Service Homes Commission who were not included in 1929.

UNEMPLOYMENT.

Particulars relating to unemployment are collected at the census, persons being returned as unemployed who had been out of work for more than a week at the date of collection. In April, 1921, when the last census was taken, unemployment resulting from post-war disorganisation was probably at a maximum, and the number of persons unemployed was 61,640, or 9.5 per cent. of the group embracing salary and wage earners and the unemployed combined. The males numbered 54,028, or 10.6 per cent., and the females 7,612, or 5.5 per cent.

During intercensal periods, the Commonwealth Statistician collects quarterly returns relating to the condition of employment amongst various classes of workers from secretaries of trade unions, excluding unions of persons in permanent employment such as railway and tramway employees, and persons whose employment is casual, such as wharf-labourers. The returns, however, are not complete because many secretaries are not able to supply accurate information owing to lack of records, and others do not send their returns regularly. Therefore, the data obtained in this way cannot be regarded as a satisfactory measure of the volume of unemployment, though when considered in conjunction with other economic data they may give a general indication of its trend.

From the particulars supplied in the quarterly returns during the year 1928 the following averages were obtained:—Unions reporting 102, membership 171,354, members unemployed 19,324 or 11.3 per cent. In 1929 returns were received from 107 unions, with 181,478 members, of whom 20,846 or 11.5 per cent. were reported to be unemployed, the proportion having increased from 9.7 in March quarter to 13.8 in December quarter. Thereafter there was a rapid increase in unemployment and the proportion of trade unionists reported as being unemployed was 26.3 per cent. in December quarter, 1930, and 29.2 per cent. in March quarter, 1931.

Intermittency of Employment.

In many industries a considerable loss of working time occurs even in normal periods on account of intermittency arising from various causes, but information regarding its extent is not available except in respect of the coalmining industry, in which intermittency is a constant factor. For a number of years the Department of Labour and Industry has endeavoured to collect records of interruptions to work in the principal coal mines.

Particulars obtained from these records show that during the period of fifteen years—1915-29—the average number of work-days was 273 per annum, after making allowances for Sundays, pay Saturdays, and regular public holidays. The days on which operations were suspended numbered, on an average, 75 per annum, or 27 per cent. of the total work-days; 28 days, or 10 per cent., were lost through industrial disputes, and 47 days, or 17 per cent., through other causes. Slackness of trade, owing to restrictions imposed on the export of coal, was the cause of considerable loss during the war period.

The total loss of working time involved by the interruptions to work in coal mines during the five years 1925-29 is shown below. The figures have been obtained by multiplying the number of days on which the collieries were idle by the number of employees affected, and by classifying the working-days lost according to the causes of the dislocations.

Causes.	Days Lost.							
	1925.	1926.	1927.	1928.	1929.	1925-1929.		
						Average per Annum.	Per cent. of Total.	
Industrial disputes..	615,203	1,134,640	683,389	369,778	2,476,536	1,055,909	48.4	
Truck shortage ...	37,185	49,652	102,392	33,652	20,552	48,687	2.2	
Slackness of trade...	597,083	547,140	780,285	1,918,075	477,734	864,063	39.6	
Mine disabilities, etc.	107,654	114,938	154,348	120,017	88,054	117,002	5.4	
Deaths of employees	20,921	28,746	17,477	12,240	5,762	17,029	.8	
Meetings, extra holiday days ...	18,678	10,302	11,500	5,655	15,579	12,343	.6	
Other causes ...	119,567	14,793	121,309	48,126	20,080	64,775	3.0	
Not stated ...	139,921	104,386	111,058	199,735	124,104	135,841	...	
Total ...	1,656,212	2,004,597	1,981,758	2,707,278	3,228,401	2,315,649	100.0	

The average number of days lost on account of dislocations in this industry during the period of five years was 2,315,649 days per annum. Industrial disputes were responsible for 48 per cent. of the loss, and lack of trade or of shipping for 40 per cent.

The loss through industrial disputes, as stated in the table, represents the working days lost in each year through disputes which commenced in that year, or at an earlier date. The number of days lost, which is calculated according to the method stated on page 744, is a gross figure based on the assumption that the employees concerned would have been working full time if the disputes had not occurred. Further details relating to the disputes are shown on a later page.

The total number of days lost during 1930 was 3,353,002, including 1,363,360 days on account of industrial disputes and 1,535,046 days owing to slackness of trade.

The number of employees in the coal mines exceeds 20,000, and as it is a fundamental industry, intermittency in mining operations has a far-reaching effect on other industries and commercial enterprises.

Relief of Unemployment.

Measures for the relief of unemployment undertaken by the State Department of Labour and Industry have been directed mainly towards the organisation of the supply of labour, by means of labour exchanges, and the assistance of destitute persons in need of sustenance while seeking employment.

A few of the trade unions provide for the payment of out-of-work benefits to their members, but otherwise there is little insurance against unemployment. The State has not instituted any fund for the purpose, and there have not been any operations under a section of the Industrial Arbitration Act which authorises the Government to subsidise from public revenue unemployment insurance funds created by contributions of employers and employees.

Substantial grants were made from the State revenues for relief works and for sustenance in necessitous cases during the year 1929, and as the volume of unemployment still expanded it became necessary to devise further means for relief. For this purpose the Prevention and Relief of Unemployment Act was passed in June, 1930, establishing a council to formulate schemes to absorb unemployed persons in public works and private enterprises, to investigate schemes for their relief and for the training of persons for whom work cannot be found in their former occupations, and to make recommendations regarding the expenditure of moneys available for the purposes of relief.

In order to provide funds the Unemployment Relief Tax was imposed on salaries, wages and other income from employment derived during the year commencing on 1st July, 1930, and on income from other sources derived during the year ended on 30th June, 1930. The tax on income from employment is payable by means of stamps affixed by employers upon records of payments made to employees. The rate was 3d. in the £ on payments during the six months July to December, 1930, then it was increased to 1s. in the £. The tax on income from other sources is levied at the rate of 7½d. in the £, which is equal to the average rate on wages, etc., over the period of twelve months.

Particulars of the tax are shown on page 140 of this volume. By the amendment passed in December, 1930, after that chapter was printed the rates were altered as shown in the preceding paragraph and the exemptions were extended so as to exclude from the tax wages which do not exceed 40s. a week and other incomes up to £100 per annum. The amending Act also authorised the recoupment from the proceeds of the tax of sums spent from the Consolidated Revenue Fund during 1930-31 in the maintenance and relief of the unemployed.

State Labour Exchanges.

The State labour exchanges are administered in conjunction with the office dealing with assisted immigration. The exchanges are situated in the main industrial centres, Sydney, Newcastle, and Broken Hill, and there are agencies in the principal country towns. The expenses are borne by the State, fees are not charged, and advances by way of loan may be made to enable persons to avail themselves of employment offered.

The functions of the exchanges are to bring together intending employers and persons seeking employment, to encourage industrial training in skilled trades, to provide suitable training for vagrant and other persons unsuited for ordinary employment, and to co-operate for these purposes with private employment agencies.

The operations of the State labour exchanges during the last ten years are shown below:—

Year ended 30th June.	Males.			Females.		
	Registered for Employment.	Sought by Employers.	Sent to Employment.	Registered for Employment.	Sought by Employers.	Sent to Employment.
1921	39,450	31,757	29,104	6,438	10,324	7,073
1922	40,806	25,789	24,763	5,448	10,925	7,551
1923	31,159	22,866	21,379	5,732	11,843	7,650
1924	31,225	23,060	21,490	5,455	10,626	7,031
1925	37,510	28,266	25,067	4,365	9,940	6,277
1926	50,694	33,690	32,204	4,534	9,310	6,204
1927	48,777	28,257	27,543	5,148	9,371	6,424
1928	66,706	31,451	30,658	5,637	9,090	7,180
1929	71,236	33,208	32,262	5,471	8,727	6,533
1930	106,561	52,159	52,108	7,967	6,821	5,801

Private Employment Agencies.

Private employment agencies are subject to supervision by the State authorities in terms of the Industrial Arbitration Act. Such agencies may be conducted by licensed persons only, and they are required to keep registers of persons applying for labour or employment, and of engagements made. The scale of fees chargeable is fixed by regulation, and if an applicant does not obtain labour or employment within fourteen days, the fee must be repaid, less out-of-pocket expenses. Licensees are prohibited from sharing fees with employers, and from keeping as lodgers persons seeking employment.

At 30th September, 1930, there were 74 private agencies on the register, viz., 41 in Sydney, 23 in the suburbs, and 10 in country districts.

TRADE UNIONS.

Until 1881 trade unions in New South Wales were subject to Imperial legislation, by which the right to combine was recognised, but actions done in restraint of trade were penalised, and the unions lacked the power to safeguard their funds. The first legislation passed in New South Wales (the Trade Union Act of 1881) is still in operation, though it was amended in 1918 by the Industrial Arbitration Act.

Provision is made for the registration of trade unions, the appointment of trustees, in whom the union property is vested, and for the constitution of rules. The use of union funds for political purposes is subject to the provisions of the Industrial Arbitration (Amendment) Act of 1918, and such payments must be made from a separate fund, to which contribution by members is optional.

There are two classes of trade unions, viz., unions of employers and unions of employees. The latter constitute the bulk of the registered organisations, and a brief account of their development was published in the 1921 issue of the Year Book at page 553.

The organisation of employees in trade unions has increased with the development of industrial arbitration, as unions formed for the purposes of arbitration must be registered under the Trade Union Act, as well as the Industrial Arbitration Act. Moreover, a wider recognition of the principle of preference to unionists has led to an increase in membership.

After the introduction of the Commonwealth system of industrial arbitration in 1904 some of the unions previously on the State registry became merged into federal associations, but unless a union elects to be regulated exclusively under federal arbitration and conciliation the branch in New South Wales retains its registration under the Trade Union Act of 1881.

Statistics relating to the trade unions of employees in the State are shown in the following statement for various years since 1911. The figures are not quite complete, as in every year some of the unions fail to supply returns to the Registrar:—

Year.	Unions of Employees	Members.			Receipts.	Expenditure.	Funds at end of Year.
		Males.	Females.	Total.			
					£	£	£
1911	179	145,784	4,743	150,527	157,202	146,757	112,494
1916	202	218,609	12,941	231,550	241,644	249,691	202,950
1921	197	234,898	23,965	258,863	363,067	345,854	194,360
1926	170	286,245	33,354	319,599	494,341	494,979	322,912
1927	170	306,380	38,689	345,069	487,723	454,190	357,588
1928	165	302,282	38,661	340,943	504,640	498,020	362,118
1929	172	287,573	40,025	327,598	633,918	631,517	372,728

At the end of the year 1929 there were 172 registered trade unions of employees. The membership, especially amongst women, increased rapidly between 1911 and 1921 as a result of organisation for the purposes of industrial arbitration and conciliation. The expansion continued until 1927, then the total membership declined owing to a diminution in employment.

The decrease amongst the men was fairly general in the various classes of industry, but there was an increase in the women in the unions during 1929, reductions in such occupations as textile workers and railway employees being offset by increased membership in the clothing and boot trades, tobacco and rubber workers, confectioners, teachers, clerks and shop assistants.

The receipts during 1929 amounted to £633,918, including contributions, £631,517. Of the total expenditure, payments in respect of benefits amounted to £109,275, and management and other expenses, including legal charges in connection with industrial awards, etc., to £522,242. The total receipts and expenditure are liable to fluctuate under the influence of prevailing industrial conditions, the amounts being inflated in some years by the inclusion of donations for relief from one union to another. The funds include cash and freehold property and assets such as shares in Trades Halls and newspapers.

The following statement shows the receipts, expenditure, accumulated funds, and membership of trade unions of employees, according to industrial classification, in the year 1929:—

Industrial Classification.	Membership at end of year.			Receipts.	Expenditure.	Funds at end of year.	Funds per member.
	Males.	Females.	Total.				
	No.	No.	No.	£	£	£	s. d.
Engineering and Metal Working	38,361	129	38,490	129,856	124,297	61,457	31 11
Food, Drink, and Narcotics	24,214	12,935	37,149	27,154	28,332	15,692	8 5
Clothing	6,039	9,522	15,561	9,668	10,197	16,209	20 10
Printing, Bookbinding, etc.	5,959	1,707	7,666	20,076	21,212	28,653	74 9
Manufacturing, n.e.i.	17,345	1,511	18,856	25,645	24,747	27,021	28 8
Building	31,861	10	31,871	30,730	32,737	20,832	13 1
Mining and Smelting	17,904	...	17,904	187,287	185,264	56,820	63 6
Railways and Tramways	38,045	699	38,744	43,306	43,399	18,015	9 4
Other Land Transport	3,929	...	3,929	14,198	15,919	5,298	27 0
Shipping and Sea Transport	11,978	25	12,003	20,009	20,299	10,499	17 6
Pastoral, etc.	26,127	612	26,739	39,748	43,743	17,908	13 5
Governmental, excluding Railways and Tramways	29,156	4,996	34,152	36,544	33,355	49,105	28 9
Miscellaneous Industries	36,655	7,879	44,534	40,982	39,163	35,819	16 1
Labour Council and Eight-hour Committees ... ..	...	...	...	8,685	8,853	9,400	...
Total Unions of Employees...	287,573	40,025	327,598	633,918	631,517	372,728	22 9

The average membership per union, excluding the labour council and eight-hour committee, is approximately 2,000; but the majority of the unions are small. In 1929 there were 20 with less than 100 members; 71 with 100 to 1,000 members; 50 with 1,000 to 5,000 members; 17 with 5,000 to 10,000; and 5 unions had more than 10,000 members.

Unions of Employers.

The records of the Registry of Trade Unions show that few unions of employers seek registration under the Trade Union Act of 1881, so that the available information concerning them is scanty and does not afford any indication of the extent of organisation amongst employers.

The unions of employers registered under the Trade Union Act in 1929 numbered 25. The membership at the end of the year was 13,369, and the funds at the end of the year amounted to £66,350. The receipts during 1929 amounted to £53,726, and the expenditure to £48,283.

Any employer or group of employers with at least 50 employees may register as an industrial union under the Industrial Arbitration Act.

INDUSTRIAL ARBITRATION.

The term "Industrial Arbitration" is used here in a broad sense to embrace all provision made by legislation for the adjustment of industrial relations between employers and employees, by arbitration, by conciliation, or by co-operation of employers and employees.

In New South Wales there are two systems of industrial arbitration: one under State law, its operation being confined to the area of the State; and the Commonwealth system, which applies to industrial disputes extending beyond the limits of one State.

A brief account of the development of the State system was published in the Year Book for 1925-26. The federal system of industrial arbitration was inaugurated in 1904. Provision is made under both State and federal systems for collective bargaining and the registration and enforcement of industrial agreements.

The industrial conditions of employment in the public service of the Commonwealth are determined by an arbitrator appointed in terms of the Public Service (Arbitration) Act, 1920-1929.

Relation between State and Commonwealth Systems.

The relation between the State and Commonwealth systems in respect of industrial awards and orders rests upon the provision of the Commonwealth Constitution Act that if a State law is inconsistent with a federal law, the latter prevails and the former becomes inoperative so far as it is inconsistent. There is, however, no organic connection between the industrial systems. The industrial authorities have adopted generally the same broad principles for the promotion of industrial peace and the maintenance of standard conditions. Nevertheless fundamental differences in legislation and in the extent of their constitutional authority have prevented them from co-ordinating their methods and practices and from blending their determinations into an industrial code for the guidance of employees and employers in all branches of industry throughout the Commonwealth. Thus differences have arisen in regard to wage determinations, disturbing the distinctions in grade, as expressed by wages, which had been recognised for many years amongst skilled workers, and the overlapping of jurisdiction has caused confusion, especially where members of a number of craft unions work in the same industry under different awards or agreements.

It is prescribed in the Commonwealth law that a federal tribunal may order a State industrial authority to cease dealing with any matter covered by a federal award, or the subject of proceedings before a federal tribunal, and State laws, awards, etc., are declared to be invalid insofar as they are inconsistent with, or deal with any matter dealt with in, a federal award, etc. Judges of the Commonwealth Court may confer with State industrial authorities in relation to any industrial matter with a view to securing co-ordination between awards and orders of the federal and State authorities.

STATE SYSTEM OF INDUSTRIAL ARBITRATION.

Industrial Unions.

For the purpose of bringing an industry under the review of the State industrial tribunals, the employees must be organised as a trade union under the Trade Union Act of 1881, and must obtain registration as an industrial union under the Industrial Arbitration Act. Registration for the purpose has been effected by practically all classes of employees throughout the State, but employees in rural industries were removed from the operation of the State industrial system in December, 1929.

Registration as a union of employers may be granted to any person or group of persons employing not less than fifty employees, and prior registration under the Trade Union Act is not prescribed, as in the case of unions of employees.

State Industrial Tribunals.

The principal tribunal is the Industrial Commission, first constituted in terms of the Industrial Arbitration (Amendment) Act, which commenced to operate in April, 1926.

The Commission is constituted as a superior court of record, by a president and two other members, all having the same status as puisne judges of the Supreme Court. It may delegate its powers in any particular matter to one member, his decision being subject to appeal to the full Commission.

The Commission is authorised to determine any industrial matter referred to it by the Minister, to determine, not more frequently than once in every six months, a standard of living and to fix the living wages, to hear appeals, to confer with persons and unions in regard to anything affecting the settlement of industrial matters, and to summon conferences.

There is also a Deputy Commissioner who exercises the powers of the Commission in matters which it refers to him, and from his determinations appeal lies to the Commission.

An industrial board consisting of nominees of employers and employees, and a chairman may be constituted by the Minister on the recommendation of the Industrial Commission for any industry or group of industries. In terms of an amending Act passed in 1916 the boards ceased to function. Nevertheless, the constitution of a board is a condition precedent to the review of an industry by the industrial tribunals, and for this reason the boards are still appointed.

A conciliation committee consisting of an equal number of representatives of employers and employees, and a chairman may be appointed for any industry or calling for which an industrial board has been constituted. The Minister appoints a number of persons to act as chairmen of the committees, the maximum number under existing regulations being twelve. The Industrial Commission allots one of the chairmen for each committee, and in this way the committees for allied industries may be grouped under the same chairman. The chairman may not vote at meetings of the committee, except when the other members are equally divided in opinion as to any question, and they agree to accept his decision.

Appeal from the determinations of a committee lies to the Industrial Commission, and the members of the committee, except the chairman, may sit with the Commission as assessors without vote to hear appeals.

The conciliation committees exercising the powers of the industrial boards may make awards fixing minimum rates of wages and salaries, minimum prices for piecework, overtime rates, number of apprentices, and hours and times to be worked to entitle employees to the wages fixed. Awards may prescribe that preference of employment shall be given to unionists, under conditions described on page 742.

The maximum rate of wages or salary which may be fixed by award is £15 per week or £750 per annum. An award or an agreement may not be made for a wage lower than the living wage declared by the Industrial Commission, and if a declaration is varied during the currency of an award the rates of wages prescribed by the award may be varied accordingly. Permits to work for less than the minimum wages prescribed by award may be granted to aged, infirm or slow workers.

Awards as to wages, overtime, and hours of work are subject to the provisions of the Forty-four Hours Week Act, which is discussed on a later page.

Proceedings before an industrial tribunal are initiated usually upon the application of employers of not less than twenty employees in any industry or calling, or by an industrial union of employees. Matters may be referred also by the Minister for Labour and Industry, and where the public interests are likely to be affected the Crown may intervene in any proceedings before a tribunal or may appeal from an award.

Awards are binding on all persons engaged in the industries or callings, and within the locality covered, for a period not exceeding three years specified therein, and after such period until varied or rescinded.

Industrial Agreements.

Industrial unions and trade unions are empowered to make with employers written agreements, which become binding between the parties when filed in the prescribed manner.

The maximum term for which an agreement may be made is five years, but it continues in force after the expiration of the specified term until varied or rescinded, or terminated after notice by a party thereto. An industrial agreement may not provide for wages lower than the living wages declared by the Commission.

Number of Industrial Awards and Agreements.

During the year 1930 conciliation committees made 28 principal awards and 112 subsidiary awards, the Industrial Commission 3 principal and 30 subsidiary awards, and the Registrar made 368 variations. At 31st December, 1930, there were 267 Conciliation Committees.

The number of awards and agreements made by the State industrial tribunals during each of the last five years is shown below:—

Year.	Awards Made.		Agreements Filed.	In Force at end of Year.	
	Principal.	Subsidiary.		Awards.	Agreements.
1926	113	153	58	329	176
1927	152	475	34	400	190
1928	85	231	39	447	166
1929	47	127	30	457	113
1930	31	510	19	469	117

Complaints regarding breaches of award and industrial agreements are investigated by officers of the Labour and Industry Department, who may direct prosecutions. Proceedings may be taken also by employers and by the secretaries of industrial unions, and the cases are dealt with by the Industrial Registrar or the industrial magistrates.

THE COMMONWEALTH SYSTEM OF INDUSTRIAL ARBITRATION.

Under the Commonwealth law, registration is a necessary qualification to entitle unions to submit disputes to the Court, or to be represented in proceedings relating to disputes, and industrial organisations of employers and of employees, representing at least 100 employees, may be registered on compliance with prescribed conditions.

The Court of Conciliation and Arbitration consists of a Chief Judge and other Judges appointed by the Governor-General, with life tenure. Each Judge is charged with the duty of endeavouring to reconcile the parties in

industrial disputes, and for the purpose he may convene compulsory conferences. Conciliation Commissioners, not more than three in number, may be appointed by the Governor-General for a term of five years with authority to intervene in industrial disputes and to summon conferences.

The Court or the Conciliation Commissioners endeavour to induce the settlement of disputes by amicable agreement, or, failing an agreement, may determine the disputes by award. Industrial agreements, when certified by a Judge of the Court or a Conciliation Commissioner and filed in the office of the Registrar, are binding on the parties thereto. The awards and agreements are made for a specified period up to a maximum of five years, and after the expiration of the definite period an award continues until a new award is made, unless the Court or Conciliation Commissioner orders otherwise. Agreements continue unless rescinded, or terminated by notice.

The powers conferred upon the Court include the power to determine rates of wages, hours, and other conditions of employment, and to grant preference to members of organisations. Similar authority may be exercised by a Conciliation Commissioner in so far as it may be exercised by a single Judge. Awards or interpretations or variations thereof which would result in the alteration of standard hours or of the basic wage or the principles on which it is computed are determined by the Chief Judge and not less than two other Judges. In such cases the Attorney-General, by public notification, may authorise any person, union, or organisation interested in the matter to apply to the Court for liberty to be heard and to examine and cross-examine witnesses.

An amending Act in 1930 made provision for the appointment of conciliation committees consisting of members representing in equal numbers the employers and organisations of employees and a chairman. These provisions were rendered practically inoperative by a decision of the High Court in regard to their validity.

Special tribunals may be appointed under the Industrial Peace Acts of 1920 consisting of an equal number of representatives of employers and employees, and a chairman, to exercise, in respect of the industry concerned, similar jurisdiction to that of the Court of Conciliation and Arbitration. An award or order of a special tribunal, or an agreement made at a conference and filed with the Industrial Registrar, is binding on the parties, and may be enforced as an award of the Court.

The large enterprises subject to federal awards and agreements include coalmining, shipping, pastoral industries, shipbuilding, timber trades, clothing factories, breweries, glass works, and rubber works, and large sections of the metal and printing trades and of the railway and tramway employees.

At 31st December, 1929, there were 92 awards of the Commonwealth Court in force in New South Wales, also 41 agreements filed under the provisions of the Commonwealth Act.

CROWN EMPLOYEES AND ARBITRATION.

Under the State Arbitration system, employees of the State Government and of governmental agencies, with the exception of the police, have access to the ordinary industrial tribunals for the settlement of disputes and the regulation of the conditions of their employment. It is prescribed moreover that conditions or wages fixed by award for employees of the Crown may not be less favourable than those for other employees doing substantially the same class of work, and the fact that employment is permanent and additional privileges are allowed to Government employees may not of itself be regarded as a substantial difference.

The police are excluded from the jurisdiction of the industrial tribunals, and are controlled by the Commissioner of Police. An appeal tribunal has been constituted to determine appeals against his decisions in regard to promotions and punishments. The tribunal is constituted by a Judge of the District Court, with or without assessors.

The rates of pay and terms and conditions of employment in the public services of the Commonwealth are regulated by a special tribunal constituted by an arbitrator appointed by the Governor-General to deal exclusively with the public service. There is no appeal against the decisions of the arbitrator, but they do not come into operation until they have been laid before both Houses of the Commonwealth Parliament, and they may be disallowed by a resolution of either House.

It has been decided by the High Court of Australia that the Commonwealth Court of Conciliation and Arbitration may make awards in respect of State employees, and it is the practice of the Court to make an award in such cases unless the rates paid and the conditions of work conform with the usual rules and conditions laid down by the Court.

HOURS OF WORK.

Prior to the introduction of industrial arbitration, hours of work in New South Wales were restricted by legislation in order to safeguard the health of the workers, especially women and juveniles. Thus the Factories and Shops Act has prohibited the employment in factories of youths under 16 and of women for more than 48 hours in any week, though overtime not exceeding 3 hours in any day is allowed on 30 days in a year, or by written permission of the Minister, on 60 days.

Hours of employment in shops have been restricted by the operation of the Early Closing Acts. Except in the case of specified shops, only one late shopping night is allowed, when the closing hour must not be later than 10 o'clock. On four days a week the shops must close at 6 o'clock, and on one day at 1 o'clock. In the Metropolitan and Newcastle districts, and in the country shopping districts in the county of Northumberland, the shops are subject to the Saturday Half-holiday Act; the late closing night is on Friday, and the 1 o'clock closing on Saturday. In other districts the half-holiday is either on Wednesday with the late night on Saturday, or on Saturday with the late night on Friday.

With the development of the arbitration system the actual working hours in organised trades and callings became subject to awards and agreements, and special legislation has been enacted for the direction of the industrial tribunals in making awards and agreements under the State jurisdiction. Thus the Eight Hours Act of 1916 prescribed a standard working week of 48 hours. In 1920 the Act was amended and a special court was constituted in February, 1921, to consider applications for a reduction of working hours, with the result that the 44-hours week was adopted in many industries. In September, 1922, the amending Act of 1920 was repealed and the Court of Industrial Arbitration restored the 48-hour week in most of these cases.

The 44-hours week was in operation again, except in rural industries, from 4th January, 1926, to 15th June, 1930. Then the law was amended to extend the hours to 48 per week, and provision was made for part-time employment, to enable the available work to be shared or "rationed" amongst the employees. Authority was given also for agreements between employers and employees for a week of forty-four hours at eleven-twelfths of the rates of pay fixed by award or agreement.

Six months later, after a change of Government, the amendment of June, 1930, was repealed and the 44-hours week was restored in terms of the Industrial Arbitration (Eight Hours) Further Amendment Act, 1930.

This Act prescribes that the ordinary hours in industries—with the exception of coal-mining and ocean shipping and of rural industries as defined by the Industrial Arbitration Act—may not exceed 8 per day, 44 per week, 88 in fourteen consecutive days, or 176 in twenty-eight consecutive days. It is provided, however, that the time worked in a day may exceed 8 if a short day or less working days than six per week are adopted by award or agreement. Thus allowance is made for the practice, adopted in many cases, of completing the full week's work in five days, leaving Saturday a whole holiday. Overtime may be permitted under certain conditions.

The Act provides also that rates of wages fixed by award or agreement upon a weekly basis may not be reduced by reason only of a reduction in hours in accordance with the Act, and that the rates fixed upon a daily or hourly basis must be increased so that each employee working full time as reduced will receive the same amount of wages as for full time under the provisions of the award or agreement.

By this Act the provisions of the amending Act passed in June, 1930, in relation to the rationing of employment are repealed and specific authority for rationing is conferred in respect of Crown employees only, so that the application of the system in other employment is liable to be restricted in terms of awards, agreements, etc.

The hours of work in the coal-mines are eight hours bank to bank, inclusive of one half-hour for meal time, on Monday to Friday, and six hours bank to bank, inclusive of one half-hour for meal time, on Saturday, Sunday, and holidays, the usual number of shifts being eleven per fortnight. The hours are reckoned from the time the first person working on a shift leaves the surface to the time the last man on the same shift returns to the surface.

The power of the Commonwealth Court of Arbitration and Conciliation in regard to hours is restricted by the condition that the question of varying the hours which have been adopted in an industry must be decided by the Full Bench. Until February, 1927, the general practice had been to adhere to the standard hours of 48 per week, and shorter hours were granted only in exceptional cases, *e.g.*, to miners working below ground, to builders' labourers who are required to spend much time in travelling to jobs, and to clothing factory hands, who are mostly women.

A claim by the Amalgamated Engineering Union for a 44-hours week was approved by the Full Court in February, 1927, and subsequently hours were reduced in some other industries—*e.g.*, the printing trades, and certain occupations in gas works. Nevertheless, the 44-hours week was not generally adopted in the Commonwealth jurisdiction, and in December, 1928, the Full Court decided that 48 hours per week should be the standard working time in the timber industry, though 44 hours had been customary in some sections of the trade.

Public Holidays.

Certain days are observed as public holidays, on which work is suspended as far as practicable. In continuous processes and in transport and other services where the employees work on holidays they receive recreation leave in lieu thereof, and in some cases extra wages.

The days which are observed generally throughout the State as public holidays are as follows:—1st January (New Year's Day), 26th January (the Anniversary of the first settlement in Australia), Good Friday, Easter Monday, 25th April (Anzac Day), Christmas Day, 26th December (Boxing Day), and the King's Birthday.

If a public holiday falls upon a Sunday, or if Boxing Day falls upon a Monday, the following day is a holiday. If the King's Birthday falls upon any day of the week other than Monday the following Monday is a holiday in lieu thereof.

In addition to the days listed above, the day after Good Friday and the first Monday in August are bank holidays, observed in respect of banks and many other financial institutions and public offices. The Governor may appoint by proclamation a special day to be observed as a public holiday throughout the State or any part of the State. It is customary in certain districts to proclaim a day in each year as Eight Hour Day. In the county of Cumberland the first Monday in October is Eight Hour Day.

PREFERENCE TO UNIONISTS.

The laws relating to industrial arbitration confer upon both State and Federal industrial tribunals the authority to embody the principle of preference to unionists in their awards, etc., but this may not prevent the employment of returned soldiers or sailors.

The State industrial tribunals may prescribe by award that preference of employment be given to members of a union, and it is a general rule to grant preference to a union which substantially represents the trade concerned. By the Industrial Arbitration (Amendment) Act of 1926 the tribunals were authorised to award "absolute preference," and many awards contained provisions which practically precluded non-unionists from engagement or made it a condition that when such persons were engaged they must apply for admission to an appropriate union. An Amending Act in 1927 nullified such provisions of current awards, and limited the authority of the tribunals so that preference may be prescribed only as between unionists and other persons offering or desiring service or employment at the same time.

The Commonwealth Court is authorised to grant preference to members of registered organisations, but it is the usual practice to refuse to order preference if the respondents undertake not to discriminate against unionists.

APPRENTICESHIP.

Conditions of apprenticeship in New South Wales are subject to general regulation in terms of the Apprentices Act of 1901, which prescribes that children may not be indentured until they reach the age of 14 years, the maximum term of apprenticeship being seven years. The hours of work may not exceed 48 per week, except in farming occupations and in domestic service.

The Industrial Arbitration Act of New South Wales confers upon the industrial tribunals authority to attach certain conditions to the employment of apprentices, the term being defined to include all employees under 22 years of age serving a period of training under indenture or other written contract for the purpose of rendering them fit to be qualified workers in an industry. Under this authority the conditions in nearly all the skilled occupations in which apprenticeship is a recognised custom were determined by industrial awards and agreements, until the year 1923, when the Board of Trade, in the exercise of its powers in regard to the control of apprenticeship, issued regulations in respect of many occupations, and the relevant provisions of awards and agreements ceased to have effect.

In April, 1926, when the Board of Trade was dissolved, apprenticeship in each industry became a matter for determination by the Conciliation Committee concerned, and provision was made for the continuance of the Board's regulations until varied or rescinded by a committee.

Contracts of apprenticeship must be registered. The normal period of apprenticeship is usually five years in the case of boys entering the

trade before reaching the age 17 years. Shorter periods are arranged for those entering at older ages, and such apprentices are required usually to attend trade or continuation schools, and, in some cases, to pass through courses of intensive training. In several occupations adult apprenticeship may be allowed under special contract. To obviate difficulties which arise from the intermittent employment of those qualified to undertake the training of apprentices, it is provided that apprentices may be transferred from one master to another, and that organisations of employers and of operatives, by official representatives, may be masters of apprentices. In some occupations the proportion of apprentices to journeymen is fixed. The rates of wages are prescribed for the apprentices in each trade. The hours and other conditions of employment are those determined by the industrial awards relating to the trade.

At 31st December, 1930, there were subsisting 6,064 indentures of apprenticeship which had been lodged with the Industrial Registrar in accordance with regulations of the Board of Trade or awards under the Industrial Arbitration Act. The following statement shows the distribution of these apprenticeships amongst the various trades:—

Trades.	Number.	Trades.	Number.
Baking	217	Glass-working	35
Boilermaking	244	Hairdressing	184
Bootmaking	197	Jewellery, Electroplating, etc. ...	38
Building	1,574	Metal Moulding	100
Butchering	28	Pastry Cooks	108
Coachmaking (Rail)	27	Printing	431
" " (Road)	161	Sheet Metal working and Tin-	
Electrical	928	smithing	32
Engineering	923	Ship and Boat building	28
Farriery	55	Other	110
Furniture	619		
Gas Meter making	24	Total	6,064

The foregoing figures do not include indentures of apprenticeship which are not required by award or regulation to be filed with the Industrial Registrar.

INDUSTRIAL DISLOCATIONS CONTINGENT UPON DISPUTES.

Under the State law strikes may be recognised as lawful if fourteen days' notice of the intention to strike has been given to the Minister for Labour and Industry, except strikes by employees of the Government or of municipal and shire councils, or by workers engaged in military or naval contracts. Strikes are illegal also in industries in which conditions of employment are regulated by award or agreement, unless the award has been in operation for at least twelve months and the union has decided by a secret ballot to withdraw from its conditions. When a strike is contemplated, or at any time during a strike, the Minister may direct a secret ballot to be taken in order to ascertain whether the majority of the unionists concerned is or is not in favour of the strike.

The maximum penalty for being concerned in a lockout is £1,000, and for an illegal strike £500 in the case of a union, and £50, or six months' imprisonment, in regard to an individual. Penalties may be imposed also for obstructing a ballot, for picketing in connection with an illegal strike, or for inducing persons to refrain from handling any commodity during a strike.

Provisions of the Commonwealth Conciliation and Arbitration Act by which lockouts and strikes were prohibited under severe penalty were repealed in August, 1930.

Particulars of Dislocations.

Records relating to industrial dislocations contingent upon disputes in all classes of industry in New South Wales are kept by the Department of Labour and Industry. Data are obtained principally from reports by police officers, departmental inspectors, and managers of coal-mines, also from managers of other industrial establishments, from union secretaries, and from newspapers and trade journals.

In the compilation of the tables relating to industrial dislocations contingent upon disputes, it is the rule of the Department of Labour in counting the number of dislocations to consider that the cessation of work contingent upon any one dispute constitutes only one dislocation. For example, if a section of employees in an industry ceases work and the dispute extends subsequently to other employees in that industry in the same or in other localities, one dislocation is recorded. On the other hand, if employees in other industries cease work in sympathy with the militant unions, the sympathy strikes are counted as another dislocation, that is, one in addition to the original dislocation.

In the coal-mining industry, when the action of one section of the employees has caused a complete cessation of the operations of the mine, the number counted is the full complement of the mine. Where a section has ceased work and the operations of the mine have continued, only those who ceased work have been included as workers involved.

In calculating the working days lost, only actual working days, viz., days on which work would be performed ordinarily, have been counted, but apparently no allowance has been made for intermittency of employment, and it has been assumed that if the dispute had not occurred work would have been continuous during the period of its currency. Consequently the figures are inflated to a certain extent, particularly in the mining industry, where there is considerable intermittency due to causes other than disputes.

The following statement shows, so far as can be ascertained, the number of workers involved, and, subject to the remarks above with respect to intermittency, the time lost by industrial dislocations contingent upon disputes in each year since 1920. Particulars are shown separately regarding dislocations which originated during the year specified, and those which commenced at an earlier date:—

Year.	Dislocations.			Workers Involved.			Working Days Lost during Year.		
	Anterior.	New.	Total.	Anterior.	New.	Total.	Anterior.	New.	Total.
1920	9	411	420	10,023	151,018	161,041	1,558,634	741,744	2,300,378
1921	4	555	559	20,597	169,510	190,107	227,645	438,273	665,918
1922	3	479	482	358	188,861	189,219	733	587,726	588,459
1923	2	250	252	957	88,739	89,696	28,143	861,419	889,562
1924	4	520	524	484	185,268	185,752	28,634	611,135	639,769
1925	6	644	650	4,192	239,320	243,512	29,436	593,668	923,104
1926	13	379	392	2,368	211,366	213,734	127,275	1,304,246	1,431,521
1927	3	457	460	650	178,920	179,570	58,250	841,702	899,952
1928	6	276	282	904	100,937	101,841	29,236	470,546	499,782
1929	2	330	332	567	100,676	101,243	4,303	3,209,761	3,214,064
1930	6	185	191	11,136	52,045	63,181	1,210,266	339,783	1,550,049

A classification of the dislocations according to mining and non-mining industries reveals the fact that disputes leading to a suspension of work occur more frequently and are more extensive in the mining industry than in any other. Moreover, the time lost in coal-mining, as a general rule, exceeds the aggregate loss in other industries. It is probable, however, that overstatement, arising from the fact that in calculating the loss allowance is not made for intermittency, is far greater in coal-mining than in other occupations, especially in recent years, when the demand for coal has been below normal. For instance, in 1928 the loss of working time in coal-mines on account of industrial disputes was 369,778 days, and the loss arising from slackness of trade and other causes was 2,337,500 days. In 1929 the principal collieries in the northern district were closed in March owing to a dispute, and were still idle at the end of the year. As a result the loss of working days attributed to industrial strife in coal-mining in 1929 increased to 2,476,536 days, while the loss due to other causes (which are inoperative during a dispute dislocation) declined to 751,865 days.

In analysing statistics of industrial disputes, especially if they are being compared with those of other countries, careful consideration should be given to the method of computation and the definition of terms, as shown on the preceding page, because the practices vary greatly in the different countries in which such data are published.

The following statement shows the particulars of the dislocations in mining and in other industries which commenced in each of the last ten years. The working days lost have been assigned to the year in which the dislocation commenced, and for this reason the figures differ from those in the previous table, which show the loss actually occurring during the year specified.

Year.	Dislocations.			Workers Involved.			Working Days Lost.		
	Mining.	Non-mining.	Total.	Mining.	Non-mining.	Total.	Mining.	Non-mining.	Total.
1920	351	60	411	109,464	41,554	151,018	316,823	652,566	969,389
1921	531	24	555	145,282	24,228	169,510	360,652	78,354	439,006
1922	417	62	479	171,327	17,534	188,861	470,972	144,897	615,869
1923	197	53	250	86,110	2,629	88,739	878,820	11,233	890,053
1924	483	37	520	173,190	12,078	185,268	537,040	103,531	640,571
1925	555	89	644	218,034	21,286	239,320	741,825	280,968	1,022,793
1926	315	64	379	148,210	63,156	211,366	1,010,052	350,594	1,360,646
1927	366	91	457	153,095	25,825	178,920	710,731	160,207	870,938
1928	231	45	276	93,438	7,499	100,937	346,123	128,726	474,849
1929	300	30	330	94,692	5,984	100,676	3,675,551*	746,486	4,422,037
1930	158	27	185	44,453	7,592	52,045	333,350†	76,797	410,147

* Includes loss up to 31st March, 1931, in one dispute pending at that date.

† Includes loss up to 31st March, 1931, in four disputes pending at that date.

The loss in the mining industry attributed to disputes which commenced in 1929 included 3,463,922 working days—2,300,772 in 1929 and 1,163,150 in 1930—on account of the closing of the northern collieries from 1st March, 1929, to 3rd June, 1930.

The days lost in non-mining industries in 1925 included 172,000 days attributed to a dispute regarding wages between the owners and the crews of British oversea vessels engaged under articles signed in ports outside Australia. A serious dispute occurred in the timber industry in January, 1929, following an extension of hours by award of the Commonwealth Court of Conciliation and Arbitration. The dislocation continued until October.

It is difficult to obtain reliable information regarding the cost of industrial dislocations. An estimate of the losses in wages in each of the ten years 1920-1929 is shown below, the method adopted being as follows:—The working days lost were classified into the fourteen industrial groups, for which average rates of wages are shown subsequently in this chapter, the days being assigned to the year in which the dislocation commenced; the days lost in respect of each group in each year were then multiplied by the rate of wages which is the mean of the average rate for adult males in that group as at the end of that year and at the end of the previous year.

Year.	Working Days Lost.			Estimated Loss of Wages.		
	Mining.	Non-mining.	All Industries.	Mining.	Non-mining.	All Industries.
	Days	Days.	Days.	£	£	£
1920	316,823	652,666	969,389	252,800	485,100	737,900
1921	360,652	78,354	439,006	317,100	66,600	383,700
1922	470,972	144,897	615,869	411,100	115,400	526,500
1923	878,820	11,233	890,053	765,300	9,000	774,300
1924	537,040	103,531	640,571	469,900	82,800	552,700
1925	741,825	280,968	1,022,793	663,000	232,000	895,000
1926	1,010,052	350,594	1,360,646	928,000	295,800	1,223,800
1927	710,731	160,207	870,938	660,400	136,900	797,300
1928	346,123	128,726	474,849	323,000	109,700	432,700
1929	3,671,945*	746,486	4,418,431	3,434,700	668,500	4,103,200

* Includes loss up to 31st December, 1930, in one dispute pending at that date.

Apart from the matter of intermittency which is discussed on the previous page, these quotations of estimated loss of wages are open to question in so far as the records are deficient in regard to the sex and age of the workers involved, therefore allowance has not been made for the proportion of women and juveniles. The proportion is small, however, as dislocations have been relatively unimportant in industries in which the majority of the women and juvenile workers are employed. Another factor for which allowance has not been made is the extent to which losses in wages during a dislocation may have been compensated by higher rates of pay after resumption of work.

Information is given in the following table regarding the duration of the dislocations which originated during the year 1929:—

Duration in Working Days.				Dislocations.	Workers Involved.	Work Days Lost.
Under 1 day	...	...	...	6	466	272
One day	...	...	...	173	48,930	48,927
Over 1 and not exceeding 7	...	...	...	123	34,032	93,805
" 7	"	"	14	14	2,173	20,466
" 14	"	"	21	4	505	7,635
" 21	"	"	28	3	214	5,096
" 28	"	"	50	1	210	8,610
" 50	"	"	100	1	280	14,740
" 100	...	...	...	5	13,866	4,218,850
Total				330	100,676	4,418,431*

* Includes loss up to 31st December, 1930, in one dispute pending at that date.

A very large proportion of the dislocations are of brief duration. The number of workers affected by dislocations lasting one day or less during 1929 was 49,396, and the loss of working days 49,199.

The causes of the disputes which led to dislocations in the mining industries and in the non-mining group during 1929 are classified in the following statement. Dislocations arising from the employment of non-union labour are included in the category, "employment of persons, etc." Those pertaining to the recognition of a union and the enforcement of union rules are classified under the head of "trade unionism."

Cause.	Mining.			Non-Mining.			All Industries.		
	Disloca- tions.	Workers in- volved.	Work- ing days lost.	Disloca- tions.	Workers in- volved.	Work- ing days lost.	Disloca- tions.	Workers in- volved.	Work- ing days lost.
Wages	42	19,711	3,511,904	8	661	2,895	50	20,372	3,514,799
Hours	14	3,732	7,896	2	3,306	681,350	16	7,038	689,246
Working conditions ..	97	22,739	57,445	3	489	745	100	23,228	58,190
Employment of persons or classes of persons ..	54	11,671	29,410	16	1,378	57,896	70	13,049	87,306
Trade unionism	12	3,339	12,116	1	150	3,600	13	3,989	15,716
Sympathy .. .. .	..	..	..	..	..	..	..	..	..
Miscellaneous	39	21,086	31,285	..	..	..	39	21,086	31,285
Not stated	42	11,914	21,889	..	..	..	42	11,914	21,889
Total.. .. .	300	94,692	3,671,945	30	5,984	746,486	330	100,676	4,418,431

In the mining industries disagreements about wages involved the greatest loss of working time during 1929, viz., 96 per cent., and in the non-mining group 91 per cent. of the loss was due to disputes about hours.

By extending the analysis of the causes of disputes over a period of five years from 1925 to 1929 it is found that in the mining industries 73 per cent. of the time lost was due to disagreements regarding wages and 11 per cent. to those relating to working conditions. Disputes in reference to the employment of persons or classes of persons were the cause of 7 per cent. of the loss, and those relating to hours, 1 per cent.

In non-mining industries disputes relating to hours showed a proportion of 59 per cent., and wages 23 per cent., the employment of persons 10 per cent., and working conditions 7 per cent. during the quinquennium.

Taking all classes of industries together, the experience of the quinquennium showed that the loss of working time incurred in disputes about wages was about 63 per cent., in disputes relating to hours 13 per cent., working conditions 10 per cent., and employment of persons or classes of persons 7 per cent.

INDUSTRIAL HYGIENE.

The trend of legislation, the organisation of public services for research and propaganda, and the development of private schemes for the promotion of industrial welfare show that widespread attention is being directed towards the reduction of the waste occasioned by preventable diseases and accidents arising in the course of industrial employment.

In both State and Federal departments of public health a section has been created to deal with industrial hygiene. The work of these units embraces the investigation of occupational diseases, the supervision of health conditions in industry, and the dissemination of advice regarding measures which safeguard the health of the workers.

Legislation in regard to industrial hygiene is contained in a number of Acts which apply to various classes of industry. The Factories and Shops Act, 1912, as amended in 1927, imposes upon occupiers of factories the obligation of providing suitable buildings and of keeping the premises clean, of securing adequate protection against fire, and of safeguarding dangerous machinery. The employment of women and juveniles and of out

workers is subject to limitations, and the employment of workers without remuneration is prohibited. Factories must be registered annually, and inspection, with the object of securing compliance with the law, is conducted by a staff of inspectors attached to the Department of Labour and Industry. In match factories the use of white phosphorus is prohibited by the White Phosphorus Prohibition Act, 1915.

In terms of the Scaffolding and Lifts Act, 1912, the use of scaffolding, lifts, cranes, hoists, and derricks is subject to supervision in order to minimise the risk of accident. In the Metropolitan and Newcastle districts where the Act is operative regulations have been promulgated regarding the construction of scaffolding, lifts, etc., and lift attendants and crane-drivers must obtain certificates of competency, which are issued by the Department of Labour and Industry.

Under the Rural Workers Accommodation Act, 1926, employers are required to provide proper accommodation for rural workers who reside on the premises. The Act applies in proclaimed districts in respect of workers employed for a period exceeding twenty-four hours in agricultural, dairying, or pastoral occupations.

The conditions under which mining is conducted are subject to regulation in terms of Acts which are described in the chapter relating to the mining industry. The Navigation Acts—State and Federal—prescribe conditions to be observed for safeguarding the health of seamen.

Industrial Accidents.

Under various enactments relating to industrial hygiene, employers are required to give notice to the statutory authority of accidents which cause injury to workers, but the available data do not supply a comprehensive record of such occurrences. In factories, employers are required to report accidents causing loss of life; accidents due to machinery or to hot liquid or other hot substance, or to explosion, escape of gas or steam, or to electricity, if an employee is disabled as to prevent him from returning to his work in the factory within forty-eight hours; and other accidents if an employee is disabled for seven days or more.

During the year 1929 twenty-two persons died as the result of accidents in factories, and there were 174 accidents which involved permanent injury, and 5,816 causing temporary injury. There were also 19 fatal and 75 non-fatal accidents in connection with lifts, scaffolding, cranes, and boilers. Particulars of accidents in mines and of railway and tramway and traffic accidents are shown in other chapters of this Year Book.

WORKERS' COMPENSATION.

Under State legislation provision has been made for the payment of compensation to workers who suffer injury in the course of their employment. The principal enactment is the Workers' Compensation Act, 1926-29, which commenced on 1st July, 1926.

Special provision for workers who are disabled by the effects of silica dust is made under the Workmen's Compensation (Silicosis) Act, 1920, as amended in 1926, and for certain cases of disablement by pneumoconiosis, tuberculosis, and lead poisoning in the Broken Hill mines under the Workmen's Compensation (Broken Hill) Act, 1920-1929, and the Workmen's Compensation (Lead Poisoning—Broken Hill) Acts, 1922 and 1924.

Compensation to members of the police force, killed or disabled by injury in the execution of duty, is payable in terms of the Police Regulation (Superannuation) Act, which is described in the section of this Year Book relating to the police. The amount of compensation is determined by the Governor.

In addition to the general enactments of the State, specific enactments of the Commonwealth provide for compensation to men in a particular class of work, such as that of seamen, which is subject to special risks, and to workers in the service of the Commonwealth Government.

Under the Workers' Compensation Act, 1926-29, compensation is payable to manual workers irrespective of the amount of their earnings, and to other classes of employees whose remuneration does not exceed £550 per annum.

A worker and, in the case of his death, his dependents are entitled to compensation if he receives personal injury or contracts a disease, arising out of and in the course of his employment, except a disease caused by silica dust, in respect of which special legislation has been enacted. The Act does not impose the obligation of compensation in respect of an injury unless it disables a worker for at least seven days.

Where death results from an injury persons wholly dependent on the worker's earnings are entitled to a sum equal to four years' earnings or £400, whichever is the larger, but not exceeding £800. The amount of any weekly payments or lump sum received by the worker is to be deducted from the amount payable, but may not reduce it below £200. In addition a sum of £25 is payable in respect of each child and step-child under 16 years who was wholly dependent on the worker's earnings.

Where there are no persons totally dependent, compensation, as determined by agreement or by the Workers' Compensation Commission, may be paid to persons partially dependent. Where there are no dependants reasonable burial expenses up to £30 are payable.

In cases of total or partial incapacity the compensation payable includes: (a) weekly payments, and (b) the cost of medical and hospital treatment and ambulance service.

The maximum weekly payment in respect of the worker is two-thirds of the average weekly earnings up to £3 a week. Where the weekly earnings of an adult worker are less than £3 he may be paid 100 per cent. up to £2 per week and a minor earning less than 45s. a week may receive as compensation 100 per cent. of his earnings up to 30s. a week. In addition, a worker is entitled to £1 a week in respect of his wife and 8s. 6d. per week in respect of each child and step child under 14 years totally or mainly dependent upon his earnings. Where no compensation is payable in respect of a wife, a worker may receive £1 a week in respect of one female dependent, who is an adult and is caring for a child of the worker under 14 years, or is a member of his family over 14 years. Where no compensation is payable in respect of children, a worker may receive 8s. 6d. a week in respect of each dependent brother and sister under 14 years. The total weekly payments to the worker and his dependants may not exceed his average weekly earnings, or £5 whichever is the smaller amount, and the total liability of the employer in respect of weekly payments may not exceed £1,000.

The employer's liability for ambulance service rendered to a worker is limited to two guineas unless the Commission allows a further sum on account of distance travelled. For medical treatment the maximum is £25 in respect of the same injury. For hospital treatment the maximum is £25, treatment as an out-patient being calculated at a rate of 3s. per treatment up to one guinea per week, and as an in-patient at a rate not exceeding three guineas per week.

With the consent of a worker, the liability for a weekly payment may be redeemed wholly or in part by the payment of a lump sum determined by

the Commission, having regard to the worker's injury, age, occupation, and diminished ability to compete in an open labour market. By agreement or order of the Commission the lump sum may be invested or applied for the benefit of the person entitled thereto. The Act contains a list of amounts which, if the worker so elects, may be paid for specific injuries.

The Act prescribes that every employer must insure with a licensed insurer against his liability to pay compensation, unless he is authorised by the Workers' Compensation Commission to undertake the liability on his own account. Insurers transacting workers' compensation business must obtain a license from the Commission, and must deposit with the State Treasurer a sum of £6,000 or £10,000 according to premium income as a guarantee that compensation payments will be met when due. Self-insurers must deposit an amount determined by the Commission.

The Workers' Compensation Commission consists of a chairman, who must be a barrister-at-law of five years' standing and who has the same status as a District Court judge, and two other members appointed by the Governor. An additional member may be appointed as deputy-chairman. The Commission exercises judicial functions in regard to the determination of compensation claims, and its decisions are final. The Commission is required to furnish workers and employers with information as to their rights and liabilities under the Act, and to make reasonable efforts to conciliate the parties to any dispute which may arise. The Commission may appoint medical practitioners as referees, and may summon a medical referee to sit as an assessor, or may submit any matter to a medical referee or a board of medical referees for report.

Salaries and other expenses incurred by the Commission are payable from a fund constituted for the purpose by contributions from insurers, who are required to pay thereto a percentage, fixed by the Commission, of their total premiums in respect of workers' compensation insurance.

Facilities to enable employers to insure are provided by the State Insurance Office as well as by private insurers.

Returns supplied to the workers' compensation by insurers indicate that over 50,000 claims for compensation under the Workers' Compensation Act of 1926 were admitted during the year ended 30th June, 1927, and the approximate numbers in the subsequent years were 61,000, 60,130, and 49,842, respectively. From particulars recorded by the Commission the following summary has been prepared, some cases being omitted in each year owing to incomplete data:—

Year.	Accidents.			Industrial Diseases.			Total Cases Reported.	Compensation Paid during Year.	
	Fatal.	Non-Fatal.	Total.	Fatal.	Non-Fatal.	Total.			
Males.									
1926-27	...	86	27,244	27,330	1	188	189	27,519	£ 439,980
1927-28	...	136	42,114	42,250	5	296	301	42,551	721,288
1928-29	...	138	41,630	41,768	6	241	247	42,015	796,931
1929-30	...	138	39,457	39,595	10	271	281	39,876	945,846
Females.									
1926-27	911	911	...	65	65	976	6,557
1927-28	...	2	1,675	1,677	...	76	76	1,753	12,678
1928-29	...	1	2,003	2,004	...	179	179	2,183	19,381
1929-30	2,094	2,094	...	121	121	2,215	24,378

The compensation paid in each year after 1926-27 includes payments in respect of cases continued from the preceding year.

Of the compensation paid in 1929-30 in respect of male workers, £91,347 were paid for medical treatment and £141,345 in weekly payments to dependants. The corresponding figures for 1928-29 were £68,799 and £123,685. Compensation in respect of female workers included £5,032 for medical treatment and £90 to dependants in 1929-30, and medical expenses £3,059 and dependants £120 in 1928-29.

Prior to its amendment in November, 1929, the Act provided for compensation in respect of injuries on the periodic journey between the place of abode and the place of employment. There were 16 fatal and 886 non-fatal cases amongst male workers, and payments amounting to £19,092 in 1926-27; 14 fatal and 963 non-fatal cases, and compensation £19,085 in 1927-28; and 13 fatal and 1,273 non-fatal cases in 1928-29 involving compensation payments of £28,491. The amounts paid in the three years represented 3.4 per cent. of the total compensation payments. Between 1st July and 29th November, 1929, there were 7 fatal and 633 non-fatal cases on the periodic journey and the compensation amounted to £22,390.

It has been estimated by the Workers' Compensation Commission that the cost of workers' compensation insurance under the Workers' Compensation Act, 1926-29, during the year 1929-30 was £2,060,160.

Compensation in terms of the Workmen's Compensation Act, 1916-1920, amounting to £8,474, was paid during 1929 in respect of 80 cases in which injury was sustained before the repeal of that law in 1926.

The Workmen's Compensation (Lead Poisoning—Broken Hill) Acts, 1922 and 1924, provide for the payment of compensation in respect of lead poisoning amongst men who had been employed by Broken Hill mine owners prior to 31st May, 1919, when mining operations were interrupted as a result of an industrial dispute. The duties of certifying surgeon or medical referee are entrusted to a board consisting of three medical practitioners appointed by the Governor, including one nominated by the mine owners and one by the workmen.

In terms of the Workmen's Compensation (Broken Hill) Acts, 1920 to 1929, which will remain in force until Parliament otherwise provides, compensation is payable in respect of persons who contracted pneumoconiosis or tuberculosis by reason of employment in the Broken Hill mines. Compensation in respect of those who were employed in the mines after the commencement of the Act of 1920 is paid by the mine-owners, and at 30th June, 1930, payments were being made in respect of 41 cases, including 35 employees who were living.

Payments to other persons eligible under the Acts are made from a fund which is maintained by contributions—one-half by the Government of New South Wales and one-half by the mine-owners. At 30th June, 1930, compensation was payable from the fund in respect of 627 workers, viz, 390 who were living and the dependants of 237 who had died. The amount paid as compensation during 1929-30 was £113,230, funeral and medical expenses amounted to £818, and fees and administrative expenses to £3,039. The total disbursements from the fund from 1st January, 1921, to 30th June, 1930, amounted to £770,031.

The Workmen's Compensation (Silicosis) Act, 1920, as amended by the Workers' Compensation Act, 1926, empowers the Government to establish a scheme for the payment of compensation with respect to workmen who suffer death or disablement owing to fibroid phthisis or silicosis of the lung, or other diseases of the pulmonary or respiratory organs caused by exposure to silica dust. Provision may be made by the scheme for the establishment of a general compensation fund to which employers in any specified industry

involving exposure to silica dust may be required to contribute. In this manner liability in respect of a disease contracted by a gradual process may be distributed amongst the employers concerned.

A scheme of compensation for stonemasons, quarrymen, rock-choppers, and sewer miners employed in the county of Cumberland, entitled the Workmen's Compensation (Silicosis) Scheme No. 1, 1927, was gazetted in September, 1927, and amendments in June, 1929, and March, 1930.

The maximum amount of compensation payable in cases of death is £500; and in the cases of incapacity a weekly payment up to 66 $\frac{2}{3}$ per cent. of the workman's average weekly earnings during the twelve months preceding the date of his injury, but not exceeding £3; the maximum liability in each case being £750. The compensation fund into which the employers pay contributions at the rate of 3 per cent. on wages is administered by a joint committee appointed by the Minister for Labour and Industry. Up to 30th June, 1930, compensation had been awarded in respect of 94 workmen, and at that date there were 97 beneficiaries, viz., 89 workmen and 14 dependants of 10 deceased workmen, one having died without dependants. The amount of compensation payable in 1929-30 was £16,272.

WAGES.

For the protection of juvenile labour a law was passed in 1903 to prevent the threatened development in unorganised trades of a system under which young workers were being employed without remuneration. It provides that a minimum wage of not less than 4s. per week must be paid to factory workers, shop assistants, and others.

In recent years the minimum rates of wages for nearly all classes of juvenile and of adult workers have been fixed by industrial tribunals exercising statutory authority.

The Living Wage.

Early legislation empowering industrial tribunals to fix minimum wages, as incidental to the preservation of industrial peace, did not give any direction regarding the principles to be observed in the exercise of the function. In practice, the tribunals adopted the principle of basing their determinations on the living wage, which must be sufficient to secure to the unskilled worker a reasonable standard of living, as distinct from the secondary wage, which is remuneration for skill or other special qualifications.

Details regarding the development of the living wage principle since it was defined by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, in the well-known *Harvester* case in 1907, are published in previous issues of the "Year Book," with particulars relating to the standard of living and the living wage determinations. In this issue only a brief description of the existing practice is inserted.

In the State jurisdiction, the living wages for men and for women are fixed by an industrial tribunal, after public inquiry regarding the average cost of living, the declarations having statutory force as the basis of industrial awards and agreements relating to wages. For the purpose of the declarations which were made prior to December, 1926, the living wage for adult males was defined as the standard wage which would do neither more nor less than enable a worker of the class to which the lowest wage would be awarded to maintain himself, his wife, and two children, in a house of three rooms and a kitchen, with food, plain and inexpensive, but quite sufficient in quantity and quality to maintain health and efficiency and with an allowance for miscellaneous expenses.

In 1927, as a result of a recommendation by the Industrial Commission, a system of family allowances was introduced in terms of the Family Endowment Act, which is described on page 448 of this Year Book. The allowances, at a maximum rate of 5s. per week for each dependent child, were supplementary to the living wage fixed by the Industrial Commission, and the Industrial Arbitration Act was amended to provide that the living wage for men be based on the requirements of a man and his wife without children.

Notwithstanding this amendment, the first declaration made by the Commission after it became law fixed the living wage for men in June, 1927, at £4 5s. per week—which represents the rate fixed by its previous declaration in December, 1926, with an addition to cover an increase in prices during the interval. Apparently the Commission regarded as a vested right, which "ought not to be disturbed without some irresistible necessity" the standard of living which had been available for a number of years to the married couple without dependent children where the man had been receiving the living wage.

Before the living wages again became a matter for determination, the Court had been reconstituted; and in October, 1929, the new tribunal, consisting of the President and two judges, decided by a majority verdict that a substantial reduction—from 85s. to 72s. 6d.—would ensue upon the practical application of the amended law, which excluded children from the family unit on which the wage for adult males was based. The Commission postponed the actual declaration for a period of fourteen days to enable Parliament, then in session, to consider the situation, and legislation was passed directing that the wage be fixed by adding to the amount 72s. 6d. per week, the extra cost of maintaining one child under 14 years, and that subsequent declarations be based on the requirements of a man, his wife, and one dependent child. At the same time the endowment payable to each family was reduced by excluding one of the children who would have been eligible but for the amending law.

A living wage for women was fixed for the first time under the State industrial arbitration system in 1918, when the Board of Trade conducted an inquiry into the matter. The standard adopted was the minimum wage to cover the cost of living of the adult female worker of the lowest paid class, but having no other responsibility and living away from home in lodgings. The rate declared in December, 1929, was fixed as a percentage of the living wage for men, in terms of the Industrial Arbitration (Living Wage) Amendment Act, 1929.

The variations in the living wages, as determined by the industrial authority constituted under State legislation, are shown below. The determinations were made by the Court of Industrial Arbitration in the years 1914 to 1916, by the Board of Trade from 1918 to 1925, and later by the Industrial Commission:—

Year.	Men.		Women.	
	Date of Declaration.	Living Wage.	Date of Declaration.	Living Wage.
		£ s. d.		£ s. d.
1914	16th February	2 8 0	...	...
1915	17th December	2 12 6	...	...
1916	18th August...	2 15 6	...	...
1918	5th September	3 0 0	17th December	1 10 0
1919	8th October...	3 17 0	23rd December	1 19 0
1920	8th October...	4 5 0	23rd December	2 3 0
1921	8th October...	4 2 0	22nd December	2 1 0
1922	12th May ...	3 18 0	9th October ..	1 19 6
1923	10th April ...	3 19 0	10th April ...	2 0 0
1923	7th September	4 2 0	7th September	2 1 6
1925	24th August...	4 4 0	24th August...	2 2 6
1927	27th June ...	4 5 0	27th June ...	2 6 0
1929	20th December	4 2 6	20th December	2 4 6

As explained above, the family unit covered by the living wage for men consisted of a man, wife, and two children from 1914 to 1925, inclusive, a man and wife only in 1927, and a man, wife and one child in 1929.

The rates shown in the table did not apply to employees in rural industries, for whom a declaration fixing the living wage at £3 6s. per week was in force for twelve months from October, 1921, and at the rate of £4 4s. per week from June, 1927, to December, 1929.

Living Wage in Federal Awards.

Under Federal jurisdiction, the Commonwealth Court assesses a basic wage for each case in which minimum wages are to be determined. The standard adopted is the Harvester wage, 7s. per day in Melbourne in 1907, which was based apparently on the needs of a man, his wife, and three children, the rate being adjusted to cover variations in the cost of living with a view to ensuring to the lowest paid worker the same standard of comfort as that rate gave in 1907.

Since 1921 it has been a general practice to make the adjustments quarterly or half-yearly during the currency of each award on a basic rate which is ascertained by applying to the Harvester wage the index number of the cost of food, groceries, and rent for the preceding quarter as determined by the Commonwealth Statistician and adding 3s. per week to the result. The sum of 3s. per week, though an arbitrary figure, was chosen after deliberation as a fair addition to cover possible increases in the cost of living in the quarter succeeding each adjustment, and to set off past losses suffered by the workers during the period when wages had been lagging behind the rapidly rising prices. This method of adjustment has been embodied in the majority of federal awards, though there are notable exceptions.

The following statement shows the quarterly adjustments in the Harvester wage, according to the index numbers for each capital city, since 1st August, 1928. The rates are stated on a weekly basis, and include the additional sum of 3s. per week, mentioned above:—

Date.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
1928.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1st August. ...	4 12 0	4 7 6	3 19 6	4 7 6	4 4 0	4 3 0
1st November. ...	4 10 6	4 6 0	3 19 0	4 5 0	4 5 0	4 2 6
1929.						
1st February ...	4 11 0	4 6 0	4 0 0	4 4 0	4 5 0	4 3 0
1st May. ...	4 15 0	4 9 6	4 1 6	4 8 0	4 6 0	4 6 0
1st August. ...	4 14 6	4 10 0	4 0 6	4 8 6	4 6 6	4 5 6
1st November. ...	4 15 0	4 10 0	4 0 6	4 8 6	4 5 6	4 6 0
1930.						
1st February ...	4 15 6	4 10 0	4 1 0	4 7 0	4 3 6	4 6 6
1st May. ...	4 12 0	4 6 0	3 17 6	4 4 0	4 2 6	4 4 0
1st August. ...	4 11 0	4 5 6	3 13 0	4 2 6	4 2 0	4 4 0
1st November. ...	4 8 0	4 3 0	3 10 6	3 18 0	3 19 0	4 2 0
1931.						
1st February* ...	4 5 0	3 18 0	3 7 6	3 13 6	3 13 6	3 18 0

* These rates may be reduced by 10 per cent.—see paragraph below.

During the year 1930 employers in various industries subject to federal awards applied to the Commonwealth Court of Conciliation and Arbitration for a variation in the method of adjusting the Harvester wage. The Full Court dealt with the applications, as required by law, and decided not to vary the basic wage, nor the method of adjusting it, without further investigation, but in view of the prevailing economic conditions it directed that wage rates in awards covered by the applications should be reduced by 10 per cent. for a period of one year from 1st February, 1931. An exception was made in respect of certain pastoral employees whose rates had been reduced in July, 1930.

When it is necessary to assess a basic wage for women the Commonwealth Court takes into consideration any special conditions affecting the employees concerned, such as broken time, allowances for travelling, etc. For this reason the rates used by the Court for various awards sometimes show substantial differences. In two industries in which the majority of women

working under federal awards are employed, viz., clothing and printing, the basic rate has been about 54 per cent. of the corresponding rate for men and in periodical adjustments this ratio has been preserved.

Living Wage Determinations in the Various States.

In South Australia the standard living wage is fixed by the Board of Industry. In Victoria and Tasmania the rates of wages in the various industries are fixed by wages boards by a process of collective bargaining between the employers and the employees in the industry concerned. In Victoria it has become the usual practice to assess a basic rate according to the method used by the Commonwealth Court of Conciliation and Arbitration. In Tasmania the standard of the Federal Court is observed to some extent, but the general average rate for unskilled labour is somewhat lower. In Western Australia the Arbitration Court determines a basic wage in June of each year, the rate so determined to operate for a period of twelve months from 1st July following. In December, 1930, the law was amended to provide that the Court may review the wage during its currency, if data supplied at quarterly intervals by the State Government Statistician indicate that a change of one shilling or more per week has occurred in the cost of living.

The following statement shows the rates used as the basis of wage determinations by the State industrial tribunals at various dates since July, 1914. The rates for Melbourne, Perth, and Hobart in July, 1914, may be regarded as fair average rates for unskilled labour and those for Melbourne and Hobart at later dates are the rates assessed by adjusting the Harvester wage according to the method used by the Commonwealth Court:—

Metropolitan Areas.	Weekly Living Wage for Adult Males determined by State Industrial Tribunals.					
	1914. (July).	1927 (August).	1928. (August).	1929. (August).	1930. (August).	1931. (February.)
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Sydney ...	2 8 0	4 5 0	4 5 0	4 5 0	4 2 6	4 2 6
Melbourne ...	2 5 0	4 7 0	4 7 6	4 10 0	4 5 6	3 18 0
Brisbane ...	2 2 0	4 5 0	4 5 0	4 5 0	4 0 0	3 17 0
Adelaide ...	2 8 0	4 5 6	4 5 6	4 5 6	4 5 6	3 15 0
Perth ...	2 14 0	4 5 0	4 5 0	4 7 0	4 6 0	4 6 0*
Hobart ...	2 8 0	4 4 0	4 2 6	4 5 6	4 4 0	3 18 0

* Reduced to £3 18s. in March, 1931.

The family unit upon which the basic wage is determined by the State tribunal in Queensland consists of a man, wife, and three children. In South Australia and Western Australia the unit is not defined by legislation, but the tribunals have adopted the unit of a man, wife, and two children. In New South Wales the unit is a man, his wife and one child and the wage may be supplemented by family allowances at the maximum rate of 5s. per week for each additional child. The rates assessed by the Commonwealth Court and those stated for Melbourne and Hobart are based on the Harvester wage for which the family unit is generally assumed to be a man, wife, and three children.

Secondary Wage.

Having ascertained the basic rates of wages for unskilled labour, the assessment of the secondary wages is a matter to be considered separately

in connection with each occupation. It is the usual practice, under the State system in New South Wales, when varying wages on account of an increase or decrease in the cost of living, to preserve unaltered the recognised margin between the skilled and the unskilled workmen in an industry, and to vary all rates of wages by the amount by which the basic wage has been increased or reduced.

The Commonwealth Court determines in each case an amount which it considers to be the fair value, as at the date of the award, of the skill required.

RATES OF WAGES.

The rates of wages for various occupations at intervals since 1901 are shown in the following statement. Except where specified, the figures indicate the minimum amounts payable for a full week's work on the basis of the weekly, daily, or hourly rates fixed by industrial awards and agreements, and for occupations not subject to industrial determinations, the ruling or predominant rates are stated. The table contains particulars of a few occupations only, but similar information relating to a large number of callings is published annually in the "Statistical Register of New South Wales." In the Register for the year 1920-21 the rates are stated for each year from 1901 to 1913, inclusive, and for 1921; and the following issue contains the rates for each year from 1914 to 1922:—

Occupation.	1901.	1911.	1921.	1926.	1927.	1928.	1929.	1930.
Manufacturing—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Cabinetmaker	52 0	56 0	101 9	110 0	111 0	111 0	108 6	108 6
Boilermaker	60 0	66 0	107 6	115 6	114 6	119 6	123 6	117 0
Coppersmith	60 0	63 0	109 6	115 6	114 6	114 6	118 6	113 0
Fitter	60 0	64 0	107 6	115 6	114 6	114 6	118 6	117 0
.. electrical	60 0	66 0	108 6	117 0	121 0	121 0	118 6	118 6
Baker	52 6	56 0	100 6	127 6	128 6	128 6	128 6	128 6
Bootlicker	45 0	54 0	98 6	101 6	100 0	100 6	102 6	93 6
Tailor (ready-made) ..	50 0	55 0	102 6	107 6	105 6	107 0	108 0	108 0
Compositor (jobbing) ..	52 0	60 0	105 0	114 0	113 0	113 0	116 0	112 0
Building—								
Bricklayer	60 0	69 0	108 0	126 6	126 6	126 6	126 6	126 6
Carpenter	60 0	63 0	110 0	126 6	127 6	127 6	125 0	125 0
Painter	54 0	60 0	104 0	117 6	117 6	118 6	116 0	116 0
Plumber	60 0	66 0	110 0	117 0	129 6	129 6	127 0	127 0
Mining—								
Coalminer, per ton (best coal)	4 2	4 2	6 11½	6 11½	6 11½	6 11½	6 11½	6 1
			103 6	109 6	109 6	109 6	109 6	108 6
Coalwheeler	42 0	42 0	to	to	to	to	to	to
			106 6	112 6	112 6	112 6	112 6	109 6
Silverminer	54 0	66 0	99 0	104 0	108 0	106 0	112 0	104 0
Transport—								
Railway loco-driver ..	66 0	66 0	106 0	112 0	111 0	111 0	114 0	109 0
	to	to	to	to	to	to	to	to
	90 0	90 0	130 0	136 0	135 0	135 0	138 0	133 0
Wharf-labourer per hour	1 0	1 6	2 9	2 11½	2 11	2 11	2 11	2 9½
	1 3							
Rural industries—								
Shearer .. per 100 sheep	20 0	24 0	40 0	40 0	41 0	41 0½	41 0½	32 6½
				and	and	and		
				45 0	45 0	45 0		
Station-hand, with keep ..	20 0	25 0	48 0	55 0	55 0	56 0	54 6	56 6
	15 0	20 0						35 0
Farm-labourer, with keep	to	to	42 0	55 0	55 0	55 0	55 0	to
	20 0	25 0						50 0
Miscellaneous—								
Pick and shovel man ..	42 0	48 0	94 6	96 6	97 6	97 6	95 0	95 0
Standard minimum wage ..	*	45 0	82 0	84 0	85 0½	85 0½	82 6½	82 6½

* Standard not fixed. † Plus family endowment. ‡ Less 2s. 3d. per week. § Plus 3s. 4d. per week.

Prior to the determination of the Harvester rate in 1907 a standard wage was not fixed, and an inspection of the predominant rates in 1901 shows that wages as low as 30s. per week were paid for unskilled labour in some factories, but the average was probably about 35s. per week.

The wages of coalminers are based on contract rates, which vary according to the condition of the seams or places where the coal is mined. The rates had been fixed by awards of a special tribunal under Federal legislation between 1920 and 1929. A dispute occurred in some of the northern mines in March, 1929, and these mines were closed. They remained idle till June, 1930, when an agreement was made and registered under the Commonwealth Conciliation and Arbitration Act, the contract rates being reduced by 12½ per cent. and the daily rates by 6d. per day.

The wages of railway engine-drivers are increased by 6s. per week on the completion of each of the first four years of service, the highest rates being paid to drivers of mail and passenger trains. An hourly rate is prescribed for wharf-labouring, as intermittency is a constant factor owing to irregularity in the daily volume of shipping trade. Extra rates are paid for handling special cargoes such as wheat, explosives, and frozen meat.

In the rural industries, rates for shearers and other pastoral employees are fixed by the Commonwealth Court of Conciliation and Arbitration. The contract rate for shearing ordinary flock sheep was raised from 35s. per 100 to 38s. in September, 1923, to 40s. in June, 1926, to 41s. in September, 1927, and reduced to 32s. 6d. in July, 1930. In the current award provision is made for the adjustment of the rates as from 1st March in each year according to the rise or fall of the index numbers of the cost of food, groceries, and housing as determined by the Commonwealth Statistician. Under this arrangement the following adjustments were made in respect of shearers' earnings under contract rates, viz., a deduction of 2s. 3d. per week in the seasons 1928-29 and 1929-30, and an addition of 3s. 4d. per week in 1930-31. A deduction of 7s. 6d. per week is to be made during 1931-32. A State award for pastoral employees prescribing a shearing rate of 45s. per 100 was in operation from August, 1926, to December, 1929, when it was rescinded by Act of Parliament. Persons not bound by the Federal award were bound to observe the conditions of the State award.

Wages of farm labourers were not fixed by award or agreement until October, 1921, when a living wage for rural workers was declared at the rate of 66s. per week without board or residence or 42s. per week for those who were provided with board and lodging. The declaration lapsed after a period of twelve months. In October, 1926, an award covering agricultural workers was issued by the Conciliation Committee relating to the industry, and in July, 1927, the living wage for rural employees at the rate of 84s. per week was declared by the Industrial Commission. In December, 1929, rural workers were excluded from the jurisdiction of the State industrial arbitration system, and State awards and agreements applying to such employees were rescinded.

The rates shown in the table for pick and shovel men relate to those engaged in the work of railway construction.

The following table of average rates shows the extent to which changes in the rates for individual occupations have affected wages in various groups of industries, and in all industries combined. The figures represent the average weekly rates of wages payable to adult males in each group of industries, and the weighted average for all groups combined in various years since 1901.

For the computations particulars were obtained in respect of 874 occupations. The industrial awards and agreements were the main sources of

information, and for occupations not subject to the industrial determinations, the ruling or predominant rates were ascertained from employers and from secretaries of trade unions. The occupations were classified into fourteen industrial groups, and the averages were calculated on the basis of the weekly rates payable to adult male employees in the metropolitan district, except in regard to the mining, shipping, and rural industries, which are conducted for the most part outside the metropolitan area.

In determining the average wage in each group an arithmetic mean was taken; that is, the sum of the rates was divided by the number of occupations, no detailed system of weights being applied owing to the difficulty of obtaining satisfactory data as to the number of persons employed in each occupation. In computing the average for all the industries combined, the average for each industrial group was weighted in accordance with the relative number of all male workers engaged in that group.

The rates shown in the table for 1921 and later years are those determined for New South Wales by the Commonwealth Statistician.

In the shipping, pastoral, and domestic industries, where food and lodging are supplied, the value of such has been added to the rates of wages:—

Group of Industries.	Average Weekly Rates of Wages at end of Year.							
	1901.	1911.	1921.	1926.	1927.	1928.	1929.	1930.*
1. Wood, Furniture, Sawmill, Timber Works, etc.	s. d. 48 4	s. d. 55 6	s. d. 101 0	s. d. 107 5	s. d. 107 7	s. d. 107 7	s. d. 107 9	s. d. 106 6
2. Engineering, Shipbuilding, Smelting, Metal Works, etc.	49 4	55 4	98 7	102 0	103 1	104 0	103 10	102 10
3. Food, Drink, and Tobacco Manufacture and Distribution	44 11	51 4	95 2	93 10	99 11	101 1	101 2	100 7
4. Clothing, Hats, Boots, Textiles, Rope, Cordage, etc.	44 5	51 7	91 10	85 4	96 3	97 3	96 10	97 4
5. Books, Printing, Bookbinding, etc.	53 1	64 4	106 3	108 2	113 4	122 5	123 6	123 6
6. Other Manufacturing	44 10	51 7	97 7	101 4	102 9	102 11	103 7	102 3
7. Building	56 2	63 4	104 7	110 0	114 4	114 3	114 7	115 8
8. Mining, Quarries, etc.	52 3	60 0	105 4	111 2	111 10	111 11	112 9	109 9
9. Railway and Tramway Services	52 2	55 2	95 5	102 1	102 1	103 0	107 8	106 2
10. Other Land Transport	41 8	44 4	92 0	87 4	99 3	99 3	97 1	97 1
11. Shipping, Wharf Labour, etc.	38 4	44 6	100 5	101 3	102 1	102 2	106 2	103 6
12. Pastoral, Agricultural, Rural, Horticultural, etc.	32 5	43 5	92 0	98 10	99 10	100 9	100 9	101 2
13. Domestic, Hotels, etc.	37 11	44 3	89 0	90 2	94 11	94 11	92 7	92 7
14. Miscellaneous	43 5	49 0	91 5	94 9	96 1	96 8	96 5	95 10
All Industries	43 11	51 5	95 10	100 5	101 10	102 6	102 11	102 3

* At 30th June.

At the end of 1921 the average rate of wages for all industries was 86.4 per cent. above the average of 1911. In the following years the average rose and fell alternately, and in 1925 it was a point slightly above the average in 1921. There was an increase of 4.6 per cent. during 1926 and a further increase in the succeeding year until June, 1929, when the average, 103s. 6d. per week, was double the average of the year 1911. At the end of the year 1929 the living wage declared by the Industrial Commission of New South Wales was reduced by an amount equal to 2s. 6d. per week, the "Harvester" wage for Sydney as adjusted for variations in the retail price index numbers declined by 3s. per week in the six months ended 30th June, 1930, and the wages of coal-miners were reduced in June, 1930. Consequently the average wage in most of the classes was lower at 30th June, 1930, than at the end of December, 1929.

The highest average rates are in the printing, building, and mining industries, which are strongly organised, and include a large proportion of skilled artisans. The next in order are the woodworking and the engineering trades. The lowest average is in the domestic group. Between 1921 and June, 1930, there were increases, ranging from 17s. 3d. to 3s. 1d., in all the groups. The classes with the largest increases were printing 17s. 3d., building 11s. 1d., railway and tramway services 10s. 9d., and rural 9s. 2d. The smallest increase was in the shipping group.

After the Industrial Arbitration Act of New South Wales was amended in 1926, wages for certain rural occupations were fixed for the first time by awards, the prescribed rates being considerably higher than the average or predominant rates which had been paid hitherto. This caused a marked increase in the average rate for the rural group.

The foregoing tables relate to the nominal rates of wages, that is the actual amounts of money payable in return for labour, and in order to show the effective value of these amounts it is necessary to consider them in relation to the purchasing power of money. Food and rent are the only elements of expenditure of which records as to variations in the purchasing power of money since 1901 are available, and in the following statement the relation between the cost of these items and the average rates of wages is illustrated. For this purpose the average rates of wages have been reduced to index numbers, which have been divided by the index numbers of food and rent. The results indicate the variations in the effective wage.

The index numbers of the nominal wage for 1916 and subsequent years, as shown below, represent the mean of the average rates at the end of the four quarters of each year. Quarterly data are not available for 1901 and 1911 and the average nominal rate at the end of the year has been used; it is not likely, however, that this would have an appreciable effect on the comparison as wages were fairly constant in these years.

Year.	Average Nominal Wage per Week.		Index Number of Food and Rent Combined.	Index Number of Effective Wage.
	Amount.	Index Number.		
	s. d.			
1901	43 11*	854	848	1007
1911	51 5*	1000	1000	1000
1913	59 7	1160	1351	859
1921	95 5	1855	1672	1109
1922	93 2	1812	1536	1142
1923	92 7	1801	1685	1069
1924	93 10	1826	1662	1099
1925	94 7	1840	1709	1077
1926	97 9	1901	1790	1062
1927	101 2	1968	1776	1103
1928	102 7	1995	1783	1119
1929	103 1	2005	1859	1079

* At end of year.

In 1901 the effective wage was slightly higher than in 1911. It declined steadily after 1911 as living became dearer, until in 1916 it was 14 per cent. lower than in 1911. Subsequently wages increased at a faster rate than the cost of food and rent, and when prices declined in 1922 the effective wage index number rose to a point 14 per cent. above the level of 1911. In later years this index number fluctuated at lower levels, and in 1929 it was about 8 per cent. higher than in 1911.

The rates of wages, nominal and effective, as stated in the foregoing tables, are based on the rates payable to employees under awards or agreements or on predominant rates for work without intermittency or overtime, and not on actual earnings, which are liable to fluctuate on account of the rise and fall in the volume of employment. Thus the census records show that there was a much larger proportion of unemployment in 1921 than in 1911. There was an unusually large degree of unemployment also in recent years.

PRODUCTION.

The value of production, as shown in this section, relates to the primary industries—pastoral, agricultural, dairying and farmyard, mining, forestry, fisheries, and trapping—and to the manufacturing industries.

The values in regard to the primary industries—except mining—are stated as at the point or place of production, on the basis of the prices to the producers, which are somewhat less than the wholesale prices in the Metropolitan market. No deduction has been made on account of the cost of items such as seed, fertilisers, containers, fodder for animals, machinery, etc.

Some of the quotations are known to be understated. For instance, the values as estimated for agricultural and farmyard produce are deficient, because records are not available as to production (which in the aggregate must be large) on areas less than one acre in extent. The production from fisheries includes only the catches of licensed fishermen.

The figures showing the estimated value of mining production in each year from 1911 to 1919-20 inclusive are based on the records of the Department of Mines, of which details are stated in the chapter of this volume relating to the mining industry. The values as recorded by the Department have been reduced by the exclusion of certain values which are included here in the production of the manufacturing industries, *e.g.*, coke produced at coke works, also the value added to minerals in the manufacture of lime and cement at limestone quarries, and in the treatment of ores at mines. The values shown for the last nine years are those supplied by the mine owners in returns collected under the Census Act, and they indicate the estimated value at the mines of the minerals raised during each year. The figures do not represent exact values, but may be considered to be the best estimates which may be made from the data available. The values do not include the production from quarries except in 1925-26 and earlier years when the output from quarries held under mining title was included.

The value of the manufacturing production is taken as the value at the factory of the manufactured goods less the cost of raw materials, water, fuel, and electricity, and containers used, and of tools replaced. With a few exceptions returns are not collected as to the production in small establishments employing less than four hands where manual labour only is used, nor from butchers' smallgoods factories.

For the foregoing reasons the aggregate value of production as stated is not complete, and should not be assumed to be the total fund available as the wages fund of the State nor as remuneration for the agents of production in the form of wages, rent for land, and interest on capital invested. The values quoted for the specified industries do not include the value added by reason of transportation to market and distribution to the consumer, nor, in the case of exports, carriage to the point of shipment. Moreover, the earnings of many important activities, such as the building industry, of which records are not available, or from railway construction or commercial and other pursuits are not included.

Thus it will be seen that the amounts quoted have several shortcomings, nevertheless they are valuable as indicating the increase or decrease in the annual production of the industries specified and as important data for measuring the growth of the national income.

The following statement shows the estimated value of production of the specified industries, at the place of production, at intervals since 1871. After 1913 the values are stated for the years ended 30th June, except those relating to the mining industry, which relate to the calendar years ended six months later.

Year.	Primary Industries.								Total, Primary and Manu- facturing Industries.
	Rural Industries.				Forests, Fisheries, and Trap- ping.	Mining.	Total, Primary Indus- tries.	Manu- facturing Industries.	
	Pastoral.	Agri- cultural.	Dairying and Farmyard.	Total, Rural Industries.					
	£ 000	£ 000	£ 000	£ 000	£ 000	£ 000	£ 000	£ 000	£ 000
1871	7,609	2,220	1,110	10,939	324	1,626	12,889	2,490	15,379
1881	10,866	4,216	2,285	17,367	492	2,138	19,997	5,183	25,180
1891	14,725	3,615	2,735	21,075	758	6,434	28,267	7,799	36,066
1901	12,447	7,060	3,188	22,695	986	5,681	29,362	10,011	39,373
1911	20,586	9,749	6,534	36,869	2,213	7,392	46,474	19,432	65,906
1912	19,431	11,817	7,192	38,440	2,347	8,177	48,964	22,681	71,645
1913	21,555	12,378	7,063	40,996	2,644	8,712	52,352	23,764	76,116
1915-16	23,494	20,362	7,649	51,505	2,603	7,478	61,586	25,235	86,821
1920-21	20,336	32,373	16,447	69,156	4,089	10,192	83,437	43,128	126,565
1921-22	25,020	20,261	12,914	58,195	3,628	9,666	71,489	46,746	118,235
1922-23	36,783	21,301	13,445	71,529	4,810	10,419	86,758	51,596	138,354
1923-24	39,775	20,556	12,327	72,658	4,204	11,845	88,707	55,661	144,368
1924-25	46,028	28,785	14,336	89,149	5,039	11,785	105,973	59,044	165,017
1925-26	42,369	20,741	14,712	77,822	5,609	12,346	95,777	64,838	160,615
1926-27	47,822	22,098	14,591	84,511	6,147	12,352	103,010	69,849	172,859
1927-28	45,407	17,018	15,273	77,698	5,208	10,436	93,342	71,805	165,147
1928-29	43,701	19,923	14,849	78,473	5,144	8,833	92,450	73,627	166,077

The total value of production increased in each decade between 1871 and 1891. During the early nineties there was a decline from which the recovery was slow. In 1901, however, the value of production was considerably higher than in 1891. During the succeeding decennium the State entered upon a period of industrial expansion, and the value of production rose rapidly. The increase during the decade 1911 to 1921 was due mainly to enhanced prices. In 1926-27 the value, £172,859,000, was the highest yet recorded, and the value in each of the two following years was about 4½ per cent. lower owing to a decline in respect of primary production.

Apart from seasonal influences, fluctuations in the value of pastoral production are mainly the result of variations in the prices of wool. In the year ended June, 1925, the total value was higher than in any earlier year. In 1925-26 the clip was very heavy, but a fall in prices caused a decline of £7,850,000 in the value to the growers. This decline was offset to a large extent by the inclusion, for the first time, of items of pastoral production

formerly omitted, viz., the natural increase in livestock, due allowance being made for exports and imports. In 1926-27 the quantity of wool was the largest yet recorded, and with an upward movement in prices the total value to the grower recovered to the extent of £7,000,000. The return from wool increased slightly in 1927-28, but the natural increase in flocks and herds was less than in the previous year, so that the value of pastoral production on the whole was lower by £2,400,000 than in the preceding season. In 1928-29 the value of pastoral production declined further on account of a decline in the price of wool.

The value of agricultural production shows considerable fluctuation, for which the principal reasons are seasonal. In 1927-28 a deficiency of rain during the growing season affected the wheat crops and prices of agricultural products declined in a marked degree during the year. In 1928-29 the decline in prices continued but the harvests were generally larger.

In the mining industry coal is the principal product, though the value of the output decreased by £3,300,000, or over 33 per cent., between 1927 and 1929. The condition of the oversea market usually exerts the most powerful influence on the production of metals, which fluctuates accordingly. The output from metalliferous mines was below normal in 1929, but the value was somewhat greater than in the previous year in consequence of an improvement in prices of lead. The value of mining production as quoted does not include the output from quarries, estimated at £1,371,000 in 1929.

The figures relating to the manufacturing industries disclose a steady advance from the beginning of the period under review, when it was less than £2,500,000, and only 16 per cent. of the total production, until 1928-29, when the value was £73,627,000, and 44 per cent. of the total. In 1929-30 the value declined to £66,848,000 or £26 19s. 7d. per head.

In the following table the values per head of population are shown:—

Year.	Primary Industries.							Manufacturing Industries.	Total Primary and Manufacturing Industries.
	Rural Industries.				Forests, Fisheries, and Trapping.	Mining.	Total, Primary Industries.		
	Pastoral.	Agricultural.	Dairying and Farm-yard.	Total, Rural Industries.					
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1871	14 19 5	4 7 5	2 3 8	21 10 6	0 12 9	3 4 0	25 7 3	4 18 0	30 5 3
1881	14 4 0	5 10 2	2 19 9	22 13 11	0 12 11	2 15 11	26 2 9	6 15 6	32 18 3
1891	12 17 10	3 3 4	2 7 11	18 9 1	0 13 3	5 12 8	24 15 0	6 16 7	31 11 7
1901	9 2 1	5 3 4	2 6 8	16 12 1	0 14 5	4 3 1	21 9 7	7 6 6	28 16 1
1911	12 7 3	5 17 1	3 18 6	22 2 10	1 6 7	4 8 9	27 18 2	11 13 5	39 11 7
1912	11 2 10	6 15 6	4 2 6	22 0 10	1 6 11	4 13 9	28 1 6	13 0 2	41 1 8
1913	11 16 11	6 16 0	3 17 7	22 10 6	1 9 1	4 15 8	28 15 3	13 1 2	41 16 5
1915-16	12 8 1	10 14 11	4 0 9	27 3 9	1 7 6	3 18 11	32 10 2	13 6 5	45 16 7
1920-21	9 14 7	15 9 8	7 17 4	33 1 7	1 19 2	4 17 6	39 18 3	20 12 8	60 10 11
1921-22	11 15 2	9 10 5	6 1 4	27 6 11	1 14 2	4 10 10	33 11 11	21 19 4	55 11 3
1922-23	16 18 6	9 16 0	6 3 9	32 18 3	2 4 3	4 15 11	39 18 5	23 14 10	63 13 3
1923-24	18 0 1	9 6 0	5 11 6	32 17 7	1 18 1	5 7 2	40 2 10	25 3 8	65 6 6
1924-25	20 8 9	12 15 6	6 7 3	39 11 6	2 4 7	5 4 7	47 0 8	26 4 1	73 4 9
1925-26	18 8 10	9 0 6	6 8 0	33 17 4	2 8 10	5 7 6	41 13 8	28 4 4	69 18 0
1926-27	20 7 4	9 8 3	6 4 4	35 19 11	2 12 4	5 5 3	43 17 6	29 15 0	73 12 6
1927-28	18 18 3	7 1 9	6 7 3	32 7 3	2 3 5	4 6 11	38 17 7	29 18 2	68 15 9
1928-29	17 17 1	8 2 10	6 1 3	32 1 2	2 2 1	3 12 2	37 15 5	30 1 7	67 17 0

The value of production per head from the pastoral industry was considerably greater in 1871 and 1881—when sheep-raising was the staple industry of the colony and pastoral output represented nearly half the total value of production—than in subsequent years when the population had entered into other activities and the export trade in wheat, butter, etc., was developed.

The development in the manufacturing industries in 1871 and in 1881, as measured by the value of output per head of population, was not so great as the figures appear to indicate. The production included the output from several classes of machines used in connection with the agricultural industry and not, strictly speaking, factories; and most of the industries were subsidiary to agricultural and pastoral activities, viz., boiling-down works, fellmongering, woolwashing, grain mills, chaffcutting, soap and candle works.

The following statement shows, in regard to the principal commodities, the average annual production, absolute and per head of population, during the three-year periods ending June, 1923, and June 1929, in comparison with the three pre-war years, 1911-13, which were years of high production:—

Product		Average Annual Production (000 omitted).			Average Production Per Head of Population.		
		1911-13.	1921-23.	1927-29.	1911-13.	1921-23.	1927-29.
Wool (as in the grease) ...	lb.	370,221	315,341	475,367	212·4	184·0	198·2
Meat, Frozen (Exported)—							
Beef	lb.	11,120	10,271	6,895	6·4	4·8	2·9
Mutton	„	63,828	41,525	28,767	36·6	19·5	12·0
Leather	„	13,373	19,013	19,644	7·7	8·9	8·2
Butter	„	79,198	86,222	98,130	45·4	40·5	40·9
Cheese	„	5,845	6,324	6,787	3·4	3·0	2·8
Bacon and Ham	„	15,940	18,642	24,390	9·1	8·8	10·2
Wheat	bush.	31,865	42,353	41,280	18·3	19·9	17·2
Maize	„	4,691	3,813	3,345	2·7	1·8	1·4
Potatoes	ewt.	1,824	1,046	847	1·0	·5	·4
Hay	„	18,612	23,100	16,168	10·7	10·8	6·7
Coal	ton.	9,664	10,485	9,397	5·5	4·9	3·9
Coke	ewt.	9,217	16,257	20,691	5·3	7·6	8·6
Gold	oz	200	32	13	·1	·0	·0
Silver*	„	14,183	8,741	9,009	8·1	4·1	3·8
Lead*	ewt.	4,204	2,244	3,454	2·4	1·1	1·4
Zinc*	„	3,553	2,447	2,798	2·0	1·2	1·2
Timber, Sawn	sup. ft.	169,078	157,899	152,542	97·0	74·1	63·6
Fish, Fresh	lb.	15,499	20,588	23,330	8·9	9·7	9·7
Rabbit Skins (Exported)	„	5,305	6,747	9,800	3·0	3·2	4·1
Iron, Pig	ewt.	771	5,373	9,056	·4	2·5	3·8
Steel	„	...	2,887	7,100	...	1·4	3·0
Portland Cement	„	2,374	3,778	8,418	1·4	1·7	3·5
Beer and Stout	gal.	22,253	24,845	28,308	12·8	11·7	11·8
Tobacco	lb.	6,370	12,211	14,914	3·7	5·7	6·2
Biscuits	„	24,175	39,244	43,744	13·9	18·4	18·2
Boots and Shoes	pairs	3,752	4,174	5,007	2·2	2·0	2·1
Bricks	No.	366,935	339,721	435,631	210·5	159·4	181·6
Candles	lb.	5,511	4,596	3,240	3·2	2·2	1·4
Electricity	units	165,249	386,742	892,365	94·8	181·5	372·0
Gas	1,000 cub. ft.	4,878	8,465	10,555	2·8	4·0	4·4
Jam and Preserved Fruit	lb.	27,767	30,396	31,498	15·9	14·3	13·1
Soap	„	31,670	37,085	52,341	18·2	17·4	21·8
Sugar, Refined	ewt.	1,834	2,373	3,038	1·1	1·1	1·3
Meat, Preserved	lb.	25,501	4,320	4,948	14·6	2·0	2·1
Tweed and Cloth	yd.	1,170	2,313	2,629	·7	1·1	1·1

* Estimated contents of ore raised.

The statement shows that the annual production of most of the commodities in the list has increased considerably since 1911-13, the principal exceptions being frozen and preserved meats, metals, maize, hay, potatoes, and timber. In some cases, however, the increase has not been proportionate to the growth of population, *e.g.*, wool, butter, wheat, coal, beer, bricks, jam and preserved fruits.

Annual variations in the quantity and value of the chief rural products—wool, wheat, and butter—are shown below. A comparison of average prices is shown also, viz., the average price of greasy wool at Sydney auctions where the bulk of the clip is sold; the average wholesale price for bagged wheat in Sydney during the period when, as a general rule, the bulk of the crop is marketed, viz., the four months December to March; and, in regard to milk used for butter, the average price paid at the butter factories to suppliers:—

Year.	Wool.			Wheat—(grain).			Butter.*		
	Quantity (as in grease).	Value to Grower.	Average Price per lb. (greasy) Sydney Sales.	Quantity.	Value to farmer.	Wholesale price per bush. (bagged) Sydney. †	Quantity.	Value of milk used.	
								Total.	Per lb. of butter.
	000 lb.	£000	d.	000 bush.	£000	s. d.	000 lb.	£000	d.
1911	404,655	14,085	8½	25,088	4,113	3 8½	83,205	3,631	10½
1912	326,557	12,488	8½	32,487	5,239	3 6½	76,610	3,895	12½
1913	379,450	14,437	9½	38,020	5,988	3 7½	77,779	3,450	10½
1920-21	275,269	13,023	12½	55,625	20,164	9 0	84,268	8,411	24
1921-22	333,856	15,557	12½	42,767	9,978	5 2½	100,673	5,800	13½
1922-23	336,899	23,048	17½	28,668	6,689	5 9½	73,724	5,805	19
1923-24	303,032	28,209	23½	33,176	7,603	4 7	72,684	5,027	16½
1924-25	369,118	34,073	25½	59,767	16,685	6 6½	117,211	6,342	13
1925-26	402,490	26,223	16½	33,806	8,590	6 0	106,968	7,045	15½
1926-27	499,322	33,234	17½	47,541	10,697	5 2½	95,853*	6,478	16
1927-28	443,860	33,874	19½	27,042	6,197	5 4½	100,795*	6,722	16
1928-29	482,920	30,879	16½	49,183	9,851	4 7½	95,337*	6,779	17
1929-30	459,970	18,000†	10½	34,407	5,448†	4 10½	104,200†	6,838	15½
1930-31†	430,000	13,500	...	68,181	...	...	...	...	...

* Made in New South Wales from cream produced in the State, interstate imports and exports of cream for butter making being excluded. † Preliminary—Subject to revision.

‡ Average—four months—Dec.-Mar.

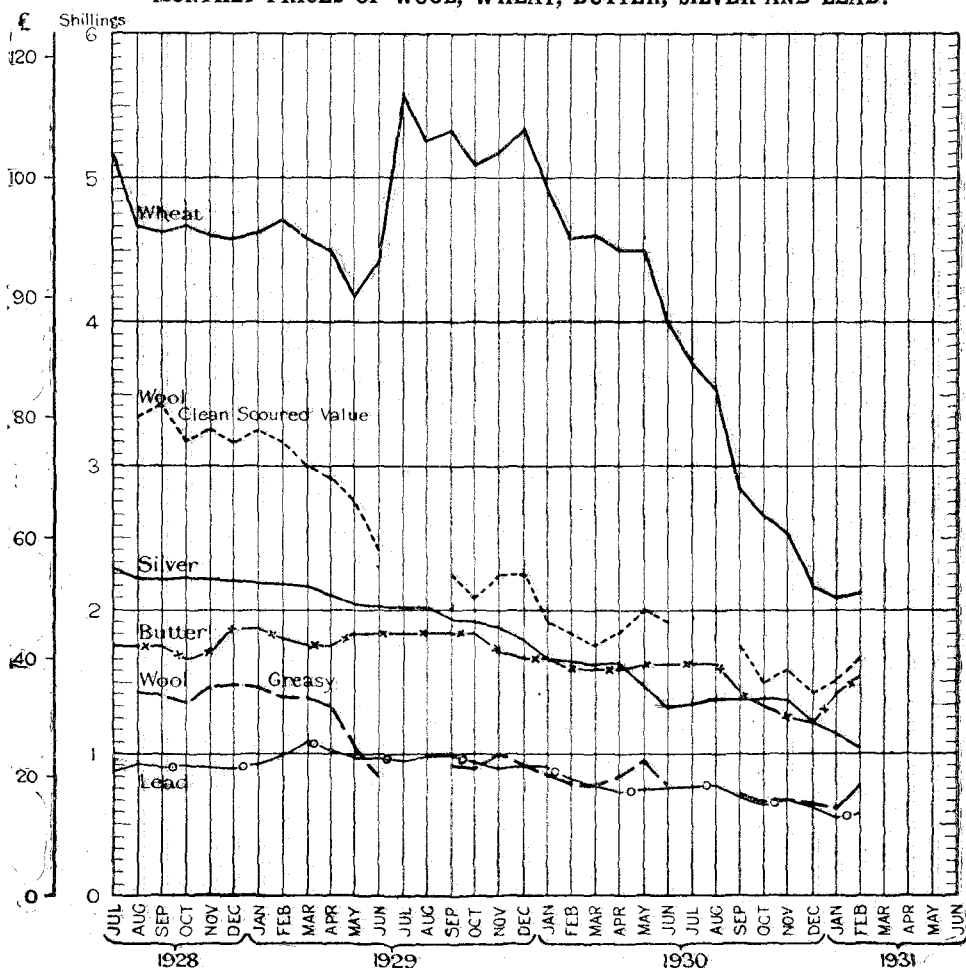
The average price of greasy wool during the three years 1911 to 1913 was 8½d. per lb. and it reached an extraordinary level, 25½d., in 1924-25. Increased production offset to a large extent the fall in prices in later seasons until 1929-30 when the average price declined to 10½d. per lb. A further decline occurred in the current season, the average for greasy wool up to the end of March, 1931, being 8.7d. per lb.

In 1920-21 and 1924-25 the wheat harvests were large and the prices were high. Variations in the value of the crop in other seasons under review were due to changes in the volume of production rather than in prices until 1931 when the price dropped below the level of pre-war years.

Dairy farmers are paid for cream supplied to butter factories according to the amount of butter made therefrom, and since 1st January, 1926, the prices of butter have been subject to an arrangement for stabilising the markets in Australia, as described in the chapter of this volume entitled *Dairying Industry*.

The monthly movements in prices of wool, wheat, butter, silver and lead since July, 1928, are illustrated in the following graph.

MONTHLY PRICES OF WOOL, WHEAT, BUTTER, SILVER AND LEAD.



The quotations for the various commodities, as illustrated in the graph, are as follows:—

Wheat.— s. d. per bushel—shippers' and millers' quotations for bagged wheat ex trucks, Sydney, at the end of each month.

Wool.— s. d. per lb.—the actual average of prices realised for greasy wool at Sydney auctions during each month, and estimates of the "clean scoured" equivalent of the "greasy" prices prevailing during each month for typical grades of merino wool. Quotations are not usually available for the months of July and August.

Butter.— s. d. per lb. for choicest quality in Sydney at the end of each month as fixed by the Butter Stabilisation Committee.

Silver.— s. d. per oz.—the middle (spot) price for standard silver on the London Metal Exchange at the end of each month.

Lead.—£ per ton—the middle (spot) price for soft lead on the London Metal Exchange at the end of each month.

INDUSTRIAL HISTORY OF NEW SOUTH WALES.

An account of the Industrial History of the State up to 1899 appears in the "Wealth and Progress of New South Wales, 1897-8," and is continued on a broader basis in the "Official Year Book, 1921." A resumé of developments from 1921 to 1926 appears in the Year Book of 1928-29 and is here continued in outline for later years to the middle of 1930.

1926-27.

The course of industrial history in this year may be considered in two parts, the first terminating and the second commencing with the advent of a period of dry weather early in 1927. With this change of weather conditions was associated a deterioration of business conditions, partly as a consequence, but partly of independent origin, and the year did not close quite so propitiously as it opened.

In the latter half of 1926 activity on the Stock Exchange increased, and the steady rise in quotations that had set in early in 1925 was strongly maintained. All classes of stocks except Government bonds advanced in price, and the contrast served to illustrate the great buoyancy of shares in financial and other business enterprises. This development was accompanied by a continued rise in the rates of net profit earned and of dividends declared by public companies, but the movement in prices was such that the yield to investors from many classes of stock diminished. This rise on the Stock Exchange was due to the weight of money seeking investment, and further evidence of the accumulation of loanable funds was present in the rapid growth of fixed deposits at credit of private customers in trading banks.

Although adverse seasonal factors had appeared in October and November, 1926, all parts of the State except the southern and far western districts received bountiful rains in December. As the growing periods of the season's wool and wheat had practically finished before the dry conditions set in, the effects were felt only in a small diminution in butter production and in the yield of wheat. However, dry conditions again appeared in the summer and autumn of 1927 over a considerable part of the hinterland and over the whole State from April until the end of September, 1927, becoming severe in July. The effect of this marked change in the seasonal factors made itself felt in the outlook for production in 1927-28 and prevented the moulding of financial and business policies on the assumption of continued expansion. The autumn and winter lambing proved small, a reduced clip of wool was anticipated for 1927-28, and the sowing and germination of wheat was retarded.

As the financial position was sustained by the proceeds of realisation of the record wool-clip and of the large wheat harvest of 1926-27, the reaction was at first only slight. Until after the middle of 1927 the growth of bank deposits and of advances was maintained with no abnormal movement, and there was only a slight fall in the high prices that had ruled on the Stock Exchange. However, as money was diverted to meet the exigencies of the pastoral season, the expansion in the volume of business became less regular. These developments, however, were probably not unconnected with a slight decline in the net earnings of companies which declared their profits in the first half of 1927, though it is probable that the reduction was mainly due to factors external to New South Wales, such as the severe drought in Queensland.

But, in general, the proceeds of the year's activities were eminently satisfactory, and despite some shrinkage in the various sources of prosperity, conditions were outwardly very prosperous.

The national income, which had increased rapidly since 1920-21, continued to expand, the increase for the year 1926-27 being approximately 4 per cent., making a total of 30 per cent. in the aggregate and 20 per cent. in the average amount per head in six years. The volume of primary production far exceeded that of any previous year and provided abundant employment. This, coupled with the favourable prices realised, made it inevitable that business activity should intensify. Bank clearings, which had reflected an increase of over 30 per cent. in interbank cheque transactions from 1921 to 1926 showed a further growth of 5 per cent. in 1926-27. The value of merchandise exported rose by nearly £2,000,000, and the value of imports increased by over £5,000,000, one-fourth of this latter increase being on account of machinery and implements. In addition, building activity continued to increase, a healthy feature being a marked expansion in the country districts.

Returns of unemployment, so far as available, showed considerable diminution, and stoppages to industrial processes through industrial disputes also decreased. Although the State basic wage was not varied between August, 1925, and June, 1927, and then only slightly, there was a considerable increase in the minimum rate used in Federal awards, and the average rate of wages paid to male adults increased steadily until, at the close of 1926, it exceeded £5 per week for the first time on record. Concurrently, there was a marked increase in the number of savings bank accounts and in the amount of deposits. Though the cost of living had risen in 1926, there was an appreciable reduction in 1927, contributed to by a slight fall in rents. This latter development was due to the improved supply of houses consequent on the steady expansion of building operations and was doubtless partly due to the fact that favourable conditions had placed an increasing proportion of home-seekers in possession of the amount of deposit necessary for the acquisition of a home by instalment purchase. This development in turn exercised an important effect in increasing the number of small property owners and stimulated the saving of capital in small amounts from many incomes which otherwise would have provided little or no permanent accumulation.

The principle of the 44-hour working week was extended to a number of industries operating under Federal awards, and a further important social and economic development was the introduction in 1927 of a form of child endowment in conjunction with the State basic wage. The rate which formerly had been intended to provide the needs of life on a minimum scale for man, wife and two children—and as such was the minimum rate payable to adult males employed under State awards—was declared at £4 5s. in June, 1927, without any children in the family unit, and was supplemented by the provision of endowment where required to raise the family income to a maximum of the basic wage plus 5s. per child per week. This provision applied to wage-earners and non-wage-earners alike.

While action was continued by the Federal Government in promoting the marketing of primary products abroad, more especially of dried fruits and wine, the State, as a result of opinions expressed at the producers' conference in 1926, enacted a law to provide for the more effective marketing of any primary product, except wool, in respect of which producers desired the benefit of the new law. This action, together with the growing spirit of co-operative endeavour, is gradually increasing the economic organisation of the primary industries of the State.

The maintenance of favourable business conditions throughout the year was facilitated by the stability of the general level of prices and by the effectiveness of the steps taken to maintain foreign exchanges in a steady and satisfactory position.

The continuance of bountiful seasons had, not unnaturally, been accompanied by "boom" tendencies in certain directions, and the effect of these, though never very apparent, became more noticeable in 1926-27. There had been a pronounced increase of building activity in the city since 1923-24, but notwithstanding the stimulus given by extensive demolitions for city improvements, the demand for new premises did not always keep pace with the supply. Again, city land values rose at a rapid rate, the average increase over all land in the city proper being approximately 40 per cent. in the three years ended 1927. There was, in addition, a very large and increasing volume of sales of individual properties at greatly enhanced prices, accompanied by considerable speculation. On the Stock Exchange values had risen to high levels, which it was apparent could be maintained only if a large amount of funds continued to be available for this class of investment, and if earnings and dividends of companies were maintained at the abnormally high rates that had been reached.

A measure of artificial stimulus was given by a large increase in the annual loan expenditure on account of the various Governments. Furthermore, a system of instalment purchase (based largely on cash orders) introduced from abroad and applied to the acquisition of both necessities and luxuries had been extensively used, and the volume of business had thereby received temporary stimulus, placing a measure of encumbrance on future income and causing a feeling of uneasiness as to the possible outcome of the system should a dry season or a depression of trade occur. In one or two instances the financial methods adopted were comparable with those of the speculative land companies which grew up before the financial crisis of 1893, the system being to offer high rates of interest for fixed deposits and to utilise these deposits in extending credit at very remunerative rates of interest through instalment purchase of goods.

Though the year had been a period of great prosperity and progress, signs of retardation were apparent at its close.

1927-28.

Into a situation, already fraught with a small element of danger, there were intruded the effects of a severe though short period of dry weather over nearly the whole of the State from April to September, 1927. When the seasonal position became acute in July and the ratio of advances to deposits was decreased, there was a noticeable reaction on the Stock Exchange, business conditions generally became less buoyant, and unemployment increased.

But the financial situation, though depressed, did not become strained, and though, doubtless, the drought was the proximate cause of the unemployment and the short business depression which followed, it was evident that factors other than these were operating to produce the phenomenon of extensive unemployment at the culmination of a period of marked industrial activity.

For, although the advent of widespread rains during October and November brought an assurance of favourable seasonal conditions, the money market continued tight, and a measure of business depression set in accompanied by a growth of acute unemployment.

Except for the temporary modification produced by the opening of relief works over the Christmas period, this unemployment increased steadily until towards the middle of 1928, when it assumed larger proportions than at any time since 1921. On the other hand, there were favourable trends in several important respects, and the year 1927-28 was one of peculiar contrasts.

Despite the continued strong growth of deposits in trading banks, the margin of deposits over advances was maintained at a much higher level

during 1927-28 than for three years previously, and as the capital of the banks had been heavily increased by large issues of shares in the first half of 1927, it was apparent that the banking situation was relatively strong, and that the financial stringency of 1927-28 was due rather to the imposition of restrictions on unhealthy activities and the husbanding of reserves against possible contingencies than to depletion of resources. It is possible also that the banks, having underwritten the issue of a large Federal conversion loan maturing in December, 1927, found it necessary to conserve their funds to meet requirements.

Though general business activity, as reflected in the inter-bank clearings, failed to increase in the high ratio that had been maintained in the five preceding years, there was nevertheless a slight increase in 1928 over the records that had been reached in 1927. Company profits taken on the whole showed some diminution, but, towards the middle of 1928, share prices and the volume of business on the Stock Exchange improved. In point of fact, after the middle of 1928 shares of banks and of well-established trading and manufacturing companies rose to a higher level than had been attained prior to the decline of 1927. The yield from investments declined mainly because of the rise in prices of securities, and rates of interest tended to fall. For instance, the price of Government $5\frac{1}{2}$ per cent. stocks sold over the Treasury counter was raised from £98 10s. to £100, and current reports from the Stock Exchange indicated that there was a large volume of money available for investment.

The growth in trading bank deposits continued unabated, although there was an appreciable slackening in the rate of addition to savings bank balances. Company flotations and building activity also continued on the large scale of previous years.

The production of wool, though 10 per cent. less than in the preceding year, was still 10 per cent. greater than had been attained in any other previous year; the production of wheat was 20 per cent. below the average by reason of the drought, but slaughtering activities and the output of butter remained at high levels.

Generally speaking, while there was no noteworthy expansion of business or industrial activity during the year, neither was there any marked degree of recession from the high standard attained in preceding bountiful years, except in the mining industry.

A close survey of material conditions does not reveal any factor likely to be sufficiently potent in its operation to cause the increase of unemployment and the depression which occurred. There seems little doubt, however, but that the adverse seasonal factor in 1927 operated to cause a degree of uncertainty in the outlook—even apprehension of a protracted drought—and that this uncertainty (though removed by the early advent of abundant rains) produced some pessimism, which reacted adversely on business enterprise and strengthened the influence of latent factors which, otherwise, might have had less effect than they really had. Although the value of production and the total of wages paid in the manufacturing industry showed continued expansion in 1927-28, there was not the same degree of robust growth as in the three preceding years and, in point of fact, there was a decline in the total number of employees engaged in the industry.

It seems certain that (as had happened at an earlier date in other parts of the world) the end had come to the artificial stimulus given to business by the rapid extension of instalment purchase through such devices as the "cash order," and there had ensued a period of some slackness due to the temporarily diminished purchasing power of the community. Simultaneously the accumulation of loanable funds indicated that business confidence had waned probably in consequence of the continued decline of world prices coupled with uncertain seasonal and industrial conditions.

In addition, the anticipation of increases in the tariff, which had been under consideration for nearly a year, had led to a large increase in the volume of imports of certain goods—notably iron, steel, and knitted goods—and certain industries temporarily suspended part of their operations. This gave rise to some further uncertainty of outlook, which was again increased by the difficulties experienced by certain companies in the motor trades and by a suspicion—justified by later events—that certain companies were over-trading in luxury goods on insecure credit.

All these occurrences had an undoubted influence on the events which followed. There had been also a succession of changes in the conditions of employment during 1926 and 1927, the last, introduced in July, 1927, being a modification of the principle of the basic wage through the introduction of family endowment financed by a tax on wages.

The growth of unemployment set in definitely in August or September, 1927, and save for modification during the Christmas period, rose to a maximum about the middle of 1928. Except as regards the mining industry—which was affected as to both coal and metals by world-wide causes—there does not appear to have been sufficient decline in industrial production nor depression in business to account for any appreciable part of the pronounced growth in unemployment. The causes of this increase seem to have been psychological rather than material, and the downward trend seems to be explainable rather by the intrusion of factors unrelated to the volume of business and industrial activity than to any inherent weakness in the general economic condition of the State, excepting, of course, the mining industry.

The immediate causes of the unemployment appear to have been a possible measure of shortening of staff in face of the uncertain seasonal outlook in the latter part of 1927, dislocation in certain industries consequent on the sudden increase in volume of imports, and the rapid decline of the coal-mining industry. These occurrences alone could scarcely have been sufficient to produce the depression, but their effects were apparently intensified by the continued operation of causes which had tended to reduce the volume of employment in relation to production. These factors were the long-continued decrease in the volume of rural employment notwithstanding the expansion of output—a trend related to a general movement, viz., the continued changes in the processes of trade and industry due to the rapidly increasing use of machinery, particularly in rural industries, the rapid substitution of the more efficient motor for horse transport, and changes in industrial processes such as the partial substitution of concrete for bricks in building.

Added to these were the facts that conditions governing employment were rapidly changing, and that immigration from overseas had increased. It would appear that, at the same time, there had been a considerable accession of unemployed from neighbouring States which had been visited by depression during the period that employment in New South Wales had remained plentiful.

Once started to operate, the influence of these forces could not be suddenly arrested, and their adverse effects were increased by the steady extension of the depression in the coal trade, which alone produced unemployment or intermittent employment for a large proportion of the employees in the industry. Related in some measure to this was the continued depression in the iron and steel industry, which was affected during the year by competition from accumulated imports.

It was evident from the facts that up to this time the causes of the business depression in New South Wales were mainly adventitious. Production had been maintained at a high level and, given continuance of average

seasonal conditions and normal stability in oversea markets, there was little likelihood that a severe crisis would develop or that recovery would be long delayed.

1928-29.

The prospects of a quick recovery in industrial conditions in 1928-29 were diminished by a number of internal factors and were finally extinguished towards the close of the year by the course of price movements oversea.

There was early anxiety regarding the wheat crops and pastures, occasioned by the absence of rain in August and September and the prevalence of warm, drying winds in pastoral districts during the latter month. Timely falls over the wheat belt in October, however, assured a large harvest, and as the wool production was the second highest on record, the high value of production from rural industries helped materially to sustain the position. In the closing months of 1928 and at the beginning of 1929 signs of some improvement were evident, notably in the slight diminution in unemployment. But, unfortunately, the continuance of dry weather until February, 1929, and again from May to August, retarded ploughing and sowing and seriously discounted agricultural and pastoral prospects for the ensuing season throughout the southern half of the hinterland.

The supply of money upon the loan markets of the world became depleted and the development of adverse conditions both at home and abroad rendered Australia unable either to borrow new money or to fund her existing floating debts. In January, 1929, the completion of a number of temporary Government works threw a considerable number of men out of employment, and in the same month, following an award which increased their working week from forty-four to forty-eight hours, about 4,000 timber employees ceased work, and the dispute dragged on to an unsuccessful ending in October, 1929. Although the industry was carried on meanwhile by voluntary labour, its operations were necessarily restricted, with consequential effects on the building industry.

The depression in the coal industry continued and, recognising its increasingly ill effect on industry, the Government put forward a scheme designed to regain lost trade overseas, to retain interstate trade, and stimulate Australian consumption by a reduction in the price of coal. The scheme was rejected by the employees as involving a reduction of wages, and on 1st March, 1929, all except two of the associated northern mines were closed by the proprietors and remained closed for fifteen months. This action left 12,000 men without employment and was the final factor in raising the number of unemployed beyond the level of any previous year of which records are available.

It was not surprising in the circumstances that trading operations, as indicated by banks' exchange settlements, were only equal in volume to those of the previous year, showing no expansion. Business of all kinds suffered from the uncertainty of the seasonal outlook in the spring of 1928, by the dislocation in the coal-mining and timber industries and the resultant increase in unemployment in 1929, and finally by the sudden and severe break in the wool market in June, 1929, coupled with an intensification of the depression that was settling on the rest of the world. This produced a sudden transformation in the Australian outlook.

The banking position remained strong during the year. Deposits in private accounts in private banks increased by £4,200,000, and though advances were expanded by £12,400,000 in order to meet the depression, there still remained a reserve of loanable funds.

The prices of stock were maintained generally, and during the greater part of the year money was readily available for investment, with a decided preference in the final quarter for Government stocks and gilt-edged securities.

1929-30.

The general economic situation in New South Wales became increasingly merged into that of the Commonwealth of Australia and the Australian situation into that of the world under the influence of an acute world-wide depression which developed with increasing severity through the latter part of 1929 and the whole of 1930. The steady decline which had been in evidence in world prices since 1925 began to accelerate rapidly about the middle of 1929, and during 1930 prices reached disastrously low levels. Practically every staple commodity and every country in the world was affected by this movement and nearly the whole of the goods exported from Australia for sale overseas suffered under the decline in prices, which was especially severe in respect of our staple exports—wheat and wool. There resulted a fall of approximately £17,000,000 in the value of merchandise exported overseas from New South Wales in 1929-30 as compared with the preceding year. This amount was equivalent to nearly 35 per cent. of the income normally earned by the exporting industries, and its loss caused a disturbance of the balance of distribution of real income. This disturbance was increased by the cessation of the flow of loan moneys from abroad as from January, 1929, resulting in curtailment of industries and enterprises which had for many years been dependent on the regular introduction of new capital into the State.

An acute industrial depression ensued, which was reflected in a diminished volume of business, widespread unemployment coupled with "rationing" of employment, falling prices, lower profits, a severe decline in the values of real property and of most securities and investments, and a heavy diminution in deposits in trading and savings banks, accompanied by a large increase in the ratio of advances. The activities of the manufacturing industries (which had expanded almost continuously over a long period of years) showed an average diminution of nearly 10 per cent., and building operations declined rapidly to only 20 per cent. of the volume of preceding years. The principal rural industries (except wheat-growing, which was affected in some degree by an adverse season) maintained the large volume of output of previous years, but were affected by the heavy fall in values. The coal and metalliferous mining industries suffered heavy declines. At the same time, the earnings of governmental enterprises, such as railways and tramways, diminished and the yield of taxation decreased. There resulted in this, as in practically every State of Australia, adverse budget balances. Bank advances were heavily increased and exceeded deposits for the first time in many years.

In the early part of 1930 the Government of New South Wales passed legislation re-introducing the 48-hour week, reducing the salaries of members of Parliament and of Government employees, and imposing a tax on all incomes in order to raise funds for the relief of unemployment. The Federal Government took action to correct the adverse trade balance by restricting the volume of imports by prohibition, rationing and the imposition of increased import duties. Rates of Federal income tax were increased, and a sales tax was imposed.

In February, 1930, the first of a series of Premiers' Conferences was called to devise means of meeting the position.

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